

TEXTILE BULLETIN

Vol. 49

OCTOBER 3, 1935

No. 5

He Carries a Cane to Make His Friendly Greeting More Expansive

Although on Days He is not Busy in Our Shop He Walks 10 Miles for his Health—Which is as Bubblingly Exuberant as His Greeting is Inspiring—After Nearly 50 years a Draper Workman Pat Dillon Has Use for his Cane only to Wave Happy Greetings to Friends He Meets

Always Happy—Always an Optimist Pat Keeps Himself Fit for His Job—for His Simple Kindly Neighborly Living

An Optimist—a Go-getter Optimist—He Walks in the Rain to Keep Fit to Enjoy the Sunshine of the Morrow



The Homely Philosophy of Optimism—the Go-getter Optimism with Faith in the Future and the Will to Win—Built the American Textile Industry

It Kept Builders of Textile Machines Busy During the Dark Days of Our Depression Designing New Tools to Fit Your Mills for a Better Tomorrow

It Should Prompt Mills That Would Prosper to Make Their Equipment Fit Now—Ready to Start a New Run without Handicap

Looms of Our X Family Run 20% Faster

DRAPER CORPORATION

Atlanta Georgia

Hopedale Massachusetts

Spartanburg S C

Announcing . . .

THE NEW ARMSTRONG'S *Extra cushion* SEAMLESS CORK COT

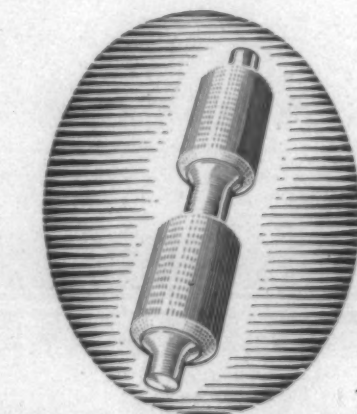
*Made under the exclusive
Armstrong TUBULAR PROCESS,
this new cork cot brings
you 6 definite advantages*

TWENTY years ago, Armstrong pioneered the first cork roll covering for the textile industry. Since that time cork cot acceptance and cork cot improvements have gone hand in hand until now more than 25% of the nation's spindles are on cots made by Armstrong. With the introduction of the new Armstrong's *Extra Cushion* Seamless Cork Cot, an era of even greater roll efficiency and savings is offered.

Armstrong's *Extra Cushion* Seamless Cork Cot is vitally important to you because of these six definite advantages:

(1) *Spins better yarn*—The extra cushion and uniform density from end to end of this new cork cot provides a better line contact with the bottom roll at all times, thus insuring a stronger, more uniform yarn.

(2) *Reduces end breakage*—The "comeback" of the new extra cushion cot means less end breakage and better running work. Tests show a reduction of end breakage of from 20% to 50% as compared with other types of roll coverings.



(3) *Improves Monday morning start-up*—Thanks to the uniform density and end-to-end strength as well as to the extra cushion which insures better alignment under all temperatures and atmospheric conditions, this new cot is a big help to those mills with cold dry rooms at start-up time on Monday mornings.

(4) *Works satisfactorily on old frames*—Where equipment is worn or damaged—with steel rolls somewhat out of true—the extra cushion of this new cork cot takes better care of these irregularities and produces a quality yarn with a minimum of end breakage.

(5) *Handles more easily in changing numbers*—Because this new cot has little tendency to hollow out—and has no hard shoulders to

prevent proper contact—mills making frequent changes of numbers will find it a distinct advantage. Any normal range of numbers may be handled without premature buffing.

(6) *Stands up under abuse*—The new extra cushion cot is stronger and tougher, and has more "comeback." For these reasons, it will not groove readily from hard ends and is less affected by top roll laps.

The six important advantages of Armstrong's *Extra Cushion* Seamless Cork Cot are made possible by an entirely new and different process of cork cot manufacture. An exclusive development covered by patents, Armstrong's new *tubular process* insures absolute control of cot uniformity from end to end and makes possible this extra cushion and strength. In addition, all operations are carried on in rooms in which both temperature and humidity are accurately controlled, thus insuring still greater uniformity.

A number of field tests conducted during the past two years have demonstrated the six advantages of this new cork cot. These tests have proved that the new extra cushion cork cot spins a better, more uniform yarn with less end breakage.

Today—write for complete details about these tests and about the new Armstrong's *Extra Cushion* Seamless Cork Cot.



Armstrong Cork Products Company

Textile Division, 921 Arch Street

Boston, Mass.

Lancaster, Pa.

Greenville, S. C.

INSTITUTE FOR RESEARCH OCT 35
IN SOCIAL SERVICE 1287 G R
UNIVERSITY OF N C BOX 711
CHAS. H. LITTLE

TEXTILE BULLETIN

Vol. 49

OCTOBER 3, 1935

No. 5

He Carries a Cane to Make His Friendly Greeting More Expansive

Although on Days He is not Busy in Our Shop He Walks 10 Miles for his Health—Which is as Bubblingly Exuberant as His Greeting is Inspiring—After Nearly 50 years a Draper Workman Pat Dillon Has Use for his Cane only to Wave Happy Greetings to Friends He Meets

Always Happy—Always an Optimist Pat Keeps Himself Fit for His Job—for His Simple Kindly Neighborly Living

An Optimist—a Go-getter Optimist—He Walks in the Rain to Keep Fit to Enjoy the Sunshine of the Morrow



The Homely Philosophy of Optimism—the Go-getter Optimism with Faith in the Future and the Will to Win—Built the American Textile Industry

It Kept Builders of Textile Machines Busy During the Dark Days of Our Depression Designing New Tools to Fit Your Mills for a Better Tomorrow

It Should Prompt Mills That Would Prosper to Make Their Equipment Fit Now—Ready to Start a New Run without Handicap

Looms of Our X Family Run 20% Faster

DRAPER CORPORATION

Atlanta Georgia

Hopedale Massachusetts

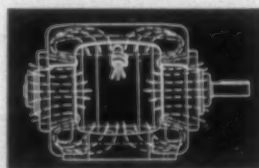
Spartanburg S C

NOW



.. a motor specifically designed for **YOU**

This is the only motor on the market that has been specifically designed to meet the specific needs of the Textile Industry. Lint and dust will not foul this motor. ♦ Here is why . . . it has big unrestricted air passages; all working parts are positively dust-sealed; surfaces are glass-smooth so that lint and dust can't adhere to them. ♦ This motor cleans itself—with the result that overheating is eliminated and maintenance costs go down with a bang! Four sizes—5, 7½, 10 and 15 hp. Standard N.E.M.A. mounting dimensions.



Cut-away section of motor showing internal construction. Note large, smooth, unrestricted air passages for thorough ventilation

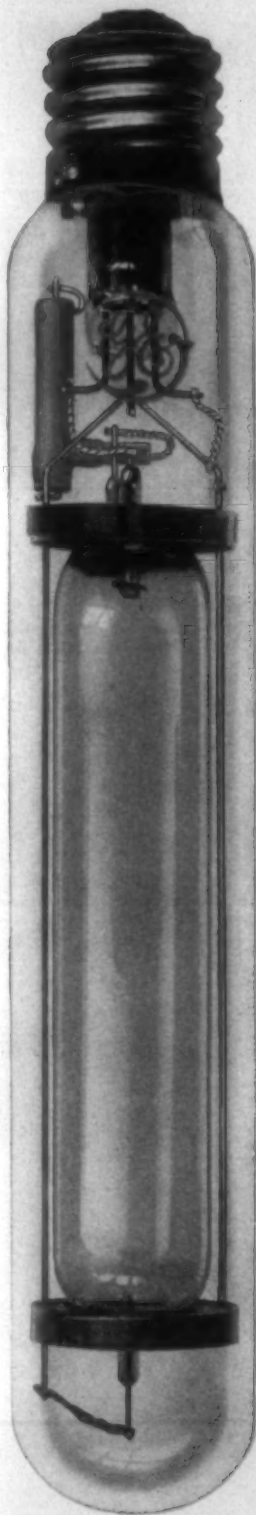
MOTORS

ALLIS-CHALMERS MFG. CO.



MILWAUKEE, WISCONSIN

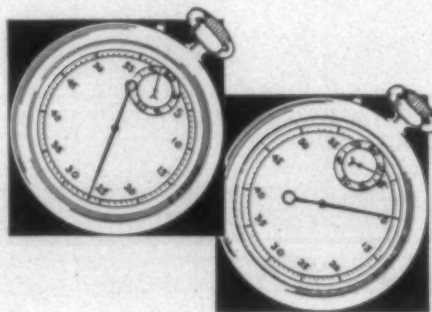
PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 118 WEST FOURTH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MARCH 2, 1897.



Quicker

VISUAL RESPONSE

saves time and promotes safety



Details unseen under other types of commercial lighting are clearly and quickly visible under the new General Electric High-Intensity Mercury Vapor Lamp. Long hours of work under this light produce no eye-strain. Excessive contrasts between light and shadow are eliminated. What few shadows there are, are luminous.

Greater lighting efficiency—more lumens per watt—is one of the inherent qualities of the G. E. High-Intensity Mercury

Vapor Lamp. In fact, the lamp costs less to operate than ordinary light on the basis of light emitted per watt of power.

Full details are contained in a sixteen-page booklet which can be secured by writing the General Electric Vapor Lamp Company, 895 Adams Street, Hoboken, New Jersey.

**GENERAL  ELECTRIC
VAPOR LAMP COMPANY**

Order your auxiliary devices which were designed especially for this lamp from the General Electric Vapor Lamp Company.



HIGH INTENSITY

Mercury Vapor Lamp

INVESTMENT

The first time you buy Cocheco
Belting you take our word for its
quality . . . Years later you will
know how soundly you invested

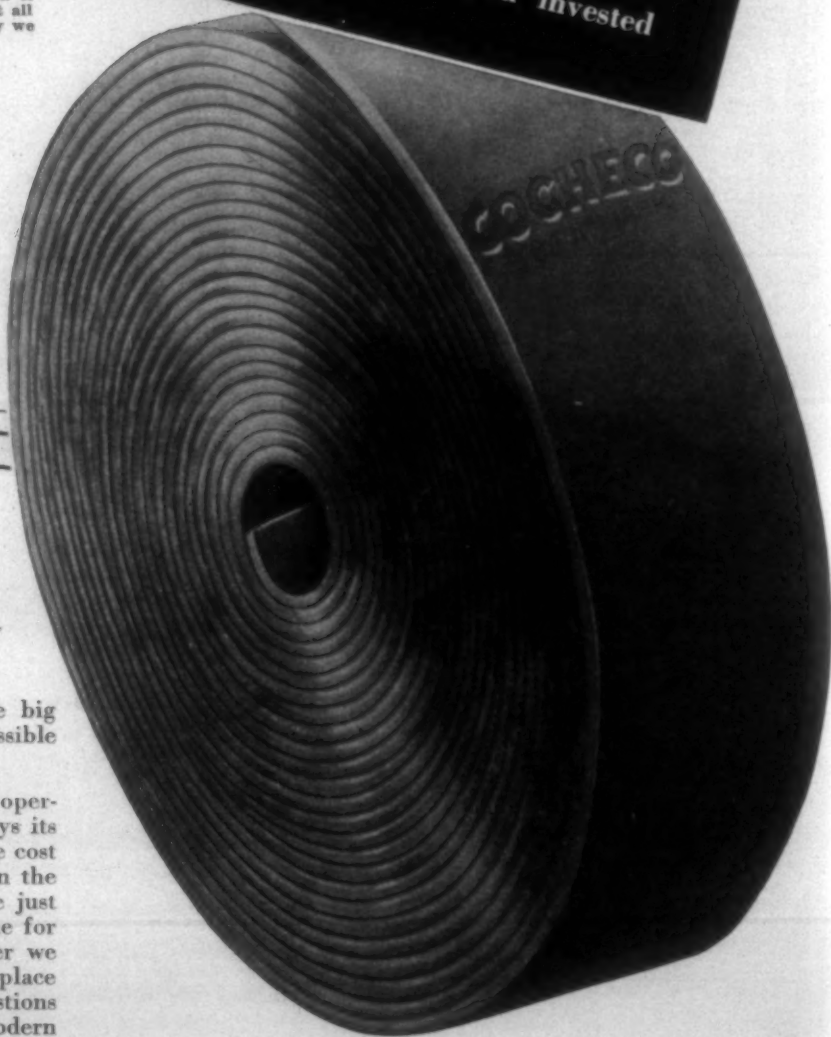
Before making an investment in belting read our BOOK ON BELTS . . . IT is a treatise on quality, how to determine it and why to insist on it . . . It has been sent all over the world. May we send you a copy?



By plunging it is possible to make big profits immediately. It is also possible to lose a fortune overnight.

Scientific plant management doesn't operate the Wall Street way when it plays its money on equipment. It looks at the cost but that cost is something more than the initial outlay. It looks to the future just as a man does in planning an income for later years. "What will it cost after we buy it, how soon shall we have to replace it with some other make?" are questions that the management of today's modern plants wants answered when it is ready to buy.

We have always striven to sell Cocheco Belting on this basis. You may buy belting for less and pocket the difference but the chances are it will cost you more in the long run. Don't gamble. Insist on the same kind of quality you put into your own product. Plan plant economy for tomorrow in buying today.



I. B. WILLIAMS & SONS, DOVER, NEW HAMPSHIRE
DETROIT CHICAGO GREENVILLE, S. C. NEW YORK CHARLOTTE, N. C.

TEXTILE BULLETIN

VOL. 49—No. 5

OCTOBER 3, 1935

Discussion On Slashing At Georgia Meeting

DISCUSSION on Slashing and Weaving featured the meeting of the Textile Operating Executives of Georgia, held at the Georgia School of Technology in Atlanta last Saturday. J. C. Edwards, of Thomaston, general chairman of the group, presided.

An address by Morgan Blake, sports editor of the *Atlanta Journal*, presided the discussion.

The report of the discussion on Slashing is given below. The discussion on Weaving will be published next week.—Editor.

Discussion On Slashing

(Led by V. J. Thompson, Manchester, Ga.)

Mr. Thompson: The first question is as follows: *We understand some mills have removed the hoods from over the slasher cylinders, and would like to know the reasons and results; also what method is used for ventilating the room, and removing the steam or vapor naturally arising when the warp passes over the cylinders.*

Mr. Jones, Columbus: We had some old type slasher hoods that we needed to replace. We also had ventilator fans, and we took the old hoods off to see what we could do about putting new ones back in their place. When we put the new ones back, we found that the work was very satisfactory. We don't have any bad work. They are usually clean and always accessible. I was very much interested in our experience last winter with these ventilators. In cold weather they work very satisfactorily. We use fans. It is about 15 feet to the roof. We use four ventilator fans. About half to two-thirds of what we are doing is experimental, but we are pleased with what we have done so far.

Frank Asbury: We have one slasher room. We have taffed off all of the hoods. We originally had wooden hoods over ours, and we had a lot of trouble about stains on the warp, and they rotted out. We put galvanized hoods on them with a large fan, and a pipe line over each slasher, and had one fan over the big cylinder, and another fan over the size box, and in the last few years to replace these wooden hoods we have put copper hoods over ours. We have found that works much better.

Chairman Thompson: Does that hood come over both the cylinders or just one?

Mr. Asbury: Over the big cylinder and over the size box.

Mr. Elliott: All of our slashers are equipped with hoods. At the ends of our hoods under certain weather conditions we find the air conditions lift those up a couple of feet. It seems to cut down condensation.

A Member: We have our slashers equipped with hoods. The hood extends back over the size box. We use a fan for ventilation. That's on top of the roof. We have gotten good results from it.

REMOVED HOODS

Mr. Mangum: About two years ago our slasher cylinders were getting in bad shape. We could not get enough exhaust through to keep it clean. It was a question of cleanliness, and we decided to take off the slasher hoods. We took off all the hoods from the cylinder, and we left the hoods over the sibe box, and increased the exhaust over that to take up the excess steam. That eliminated the trouble, and we find it is no hotter than it was previously.

Chairman: You don't have any trouble with your weaving from the steam?

Mr. Mangum: No. We used an exhaust system through the roof. The air goes sort of through the exhaust on the back side. The heat of your slasher cylinders tends to rise, and the stream of air carries it on out.

Mr. Rogers: You don't have any ventilator on top of the house?

Mr. Mangum: It happens to be on the second floor, and it is a four-story building, and all the exhaust has to go out of the top of the house. It goes out very nicely.

Mr. Rice: We had the hoods all taken off, and had an exhaust fan over the size box. I don't know just how long it had been off, not over a year or two, and we soon discovered that the ceiling overhead was rotting out. And we had to replace some beams. We put the hoods back on, brass hoods, and obviated that. It got so hot that people could hardly stay in there.

Mr. Mangum: There was another plant I knew of at Alexander City, that had a good system of hoods over their slashers, and they removed all of them. They have the advantage of being on the second and top floors, and all the steam goes out from the skylight on that job.

RE-COVERING SQUEEZE ROLLS

Chairman: We will go to the second question, which is as follows: *"How often should the squeeze roll be recovered in regular slasher operation? Do you remove slasher cloth from rolls over the week-end and leave in water; if so, why? Does this increase the life of cloth? In putting on new cloth, do you put the new cloth on top, or underneath with the old cloth brought to the surface? Why?"*

Mr. Johnson: We recover our squeeze rolls about every ten days. We don't remove our slasher cloth over the week-end. When we put on our new cloth we generally

put the old cloth over the top. It has a tendency to squeeze out better, and then it lasts much longer by putting this old cloth over the top.

Chairman: What do you use for a cushion?

Mr. Johnson: Plain sheeting, right around the roll.

Mr. Dunwoody: We use a 70 per cent warp underneath $2\frac{1}{2}$ yards of yarn, because it gives us better results. We have colored work. We use four yards of cotton cloth, four yards of sheeting, with four yards of composition cloth, 70 per cent cotton as a cushion. This cushion will last about four months, and the sheeting will last much longer, possibly eight to ten months. We trim this blanket two or three times before we take it off. We do not remove the blanket over the week-end. We roll that up when we stop off, and Monday morning we wet it, and keep it wet about one hour before we start up. We don't know that it increases the life, but it does help the feel of the yarn, when we start up Monday morning. We put the new blanket on top because the old one, if it has been running for any length of time, will not give us the proper results.

Mr. Corker: We re-cover about every 60 hours. We put our blanket on the back roll, and on top of that we put about five yards of sheeting, on the back roll on top of the blanket, and then, when we change it, we put that on the top of the roll, and take off the other.

Chairman: Why do you put the sheeting on top of the wool? What result does that give?

Mr. Corker: We just don't want the blanket back there by itself. We get better results.

Chairman: You use the blanket as a sort of a cushion?

Mr. Corker: Yes.

Mr. Smith: We don't take our blankets off at the week-end. We put the new blanket on the back roll. We get a little better result by putting it on the back roll. We don't know whether we increase the life or not, but we take off the old blanket, and put it over the new blanket until it gets set. When it begins to wear, we take it off. We have the same weight rollers back and front.

SPEED OF SLASHERS

Chairman: We will go to the third question, which is as follows: *"What do you consider is the proper speed for your slashers? State yarn number, number of warp ends to set, whether you have temperature control equipment, etc."*

A Member: We don't have automatic control on our cylinders. Our maximum speed is 35 yards a minute; average 25 yards; 2,500 ends; our slow speed is 25.

Mr. Alford: On 30s yarn 76 ends we get satisfactory results running 35 yards. We run slashers at different speeds ranging from 35 yards to 60 yards per minute with 1,980 ends per set. We have control equipment on our size box, none on the cylinders. We get good results at 60 yards per minute.

A Member: We run our slashers 30 yards a minute with 3,700 ends on 30s yarn and no control. That is six pounds steam pressure. The lower the number of ends the faster we can run it, and the higher the number of ends, and the coarser, the slower we run it. We slow it down.

27 AND 30 YARDS PER MINUTE

Mr. Walker: We have our speeds divided into practically two classifications. On denims and the like 27 yards a minute; on lower goods 30 yards a minute. We have temperature control in one room but not the other, but those speeds have worked out very satisfactorily to us.

Chairman: Do you get the best results where you have control or where you have not? Give us your idea.

Mr. Walker: That brings up quite a discussion. With our warps it is pretty hard to keep them divided. We attempt to make all warps for 1 and 2 mills in No. 1, and the same thing in 3 and 4, but that's pretty hard to do.

Mr. Ballantyne: We consider that about 30 yards per minute on the slasher is about the right speed. We run with 2,676 ends, 26s warp. On 21s warp the same number of ends we run around 29 to 30. We have temperature control on the size box.

65 YARDS PER MINUTE

A Member: We are running 65 yards on very light sets. We have run as low as 48. We don't know what the proper speed is. On heavy sets, 3,200 ends, 30s, we run 35 yards a minute. We have no control on the cylinders. We have control on the size box.

Chairman: Can you tell any difference, when you run it fast or slow, by the result you get in the weave room?

Answer: If we run any slower than that, we do not notice any particular difference. We are able to slow it down from 65 to about 50, but we can't tell any great difference.

CONTROL HELPS WORK

Chairman: We have a variation of numbers. Ours run from 30s down, and on some we cannot run over 15 yards a minute. We have controls on everything. I think the control is one of the best things we can put on a slasher. At least you have a chart there. You can go by and look at that, and see if it is being done right. We run the heat at one thing all the time. We change speed of the cylinders from time to time.

Mr. Rogers: What temperature do you run?

Chairman: 240 on 6 cylinders; 230 on small cylinders. That's the temperature. Sometimes we have 15 pounds of steam going in; sometimes 3 pounds.

Mr. Rogers: How great a variation do you have in your yarn numbers and number of ends?

Chairman: On $2\frac{1}{2}$ s we have about 2,000 ends, and on other numbers it runs up as high as 6,000 ends.

CONTROL OF MOISTURE VARIATION

Mr. Rogers: Within what limits are you able to control your moisture variation?

Chairman: I have no figures right lately on that. When we were working out this thing, we had one cylinder we worked on one slasher, and when we had on one set trying it out, we found we got a whole lot less variation with control than without, and we got a more uniform size on it.

Mr. Rogers: Do you have any simple method in rolling your cylinders with a small amount of ends?

Chairman: We tie those sets with a piece of wood, that bunches the yarn into a space of about 5 inches, and prevents rolling.

Mr. Rogers: We do that, too, but I wanted to know if they had a better way.

A Member: If you have one bearing on top of the yarn, and one under it, that keeps it from rolling together on a small number of ends.

VARIATION IN CUTS OR YARDS ON VARIOUS SETS

Chairman: The next question is: *"What variation in number of cuts or yards from various sets should be expected? Please give number of yards per set and actual cuts or yards measured from various sets. What are the causes of this variation?"*

Mr. Elliott: I asked that question. What we did was checking into the records, and in checking that we kept a record of the number of cuts that came from each set. That record is so old that we can go back several years. In checking up on these records we noticed variation in

(Continued on Page 34)

Master Mechanics' Meeting At Gastonia

(Continued from last week)

THE report of the meeting of the Master Mechanics' Division, Southern Textile Association, at Gastonia, N. C., on September 20th, was begun in last week's issue. The remainder of the report follows:

Chairman: Gentlemen, are there any questions that any of you would like to ask the speaker?

Member: I would like to know about the kilowatt hours here. Does that run from morning to morning, does it take in banking coal and all these things? Does it include banking coal from the time the plant is started for the entire year's operation?

Mr. Rowan: That is my understanding, that it takes in the entire year's operation, banking the coal and everything else.

Mr. Fox: Mr. Chairman, I would like to ask a few questions, if it is possible. I think that Mr. Young over there gave us a very enlightening statement about the 1.7 to 1.75, isn't that what you said?

Mr. Young: Yes, sir.

Mr. Fox: And I presume that is operative conditions and not test conditions.

Mr. Young: Yes, sir.

Mr. Fox: Now, that brings it down to where we can discuss the matter. I think, however, that he made an error in the statement that he made that he made a hundred per cent load factor. Those words, load factor, are the thing that play the Devil with costs. Now, he means, I presume, he has a hundred per cent factor while the plant is running, but the plant does not run a hundred per cent load factor for the time of the 24 hours per day. If he will pardon me for making this explanation.

Mr. Young: I mean the entire plant in operation.

Mr. Fox: Now, that operation means that there are a certain number of hours that it can be operated during the year. It has not a hundred per cent load factor, if it doesn't carry its load for 24 hours per day. Now, this industrial load depends entirely upon the character of the duties. Take the textile industry today with its operation of two shifts we would say of 18 hours, of approximately 320 hours a month out of the possible 720 hours. It is a 50 per cent load factor. Those plants operating 24 hours a day can produce loads cheaper than those plants operating but half the time. That is a well known fact to all of us and we don't need any explanation of that.

THE LOAD FACTOR

I am afraid that my friend, probably, over-emphasized the question of power produced from fuel oils. Of course, you can produce power very cheaply if anybody will give you a power plant for nothing. I presume that they can produce a kind of kilowatt hour for about a half a pound of coal from the operating standpoint in very large plants, just as they can produce a kilowatt hour from 10 pounds of fuel oil. There is also, of course, the lubricating oil. But operating charges are not the only charges in a plant. You have got this old man overhead, the fixed expenses, which goes on whether you are working or not, whether the plant is operating or not. And a great trouble with all of our figures is that we get on the plant, when it comes to power production is that we don't

establish a standard or starting point. It is possible to take a fuel engine and run it very economically. But, as the speaker said, fuel is or the power is only a small portion of the total cost. So we can take a steam plant, we can run it very efficiently and even get it down to probably to four-tenths a pound of cost per kilowatt hour in very large plants, but when it comes to the smaller plant, of course, cost goes up. But it is the load factor that determines essentially the cost of operating any kind of a power plant. If you can operate a plant for 24 hours a day, you can see your coal per kilowatt hour falling all the way down. Those plants that are fortunate enough to have an outlet for surplus steam like a finishing plant, they can use power very cheaply, because their total production of power is a matter of the units of heat that goes into the by-products. Therefore, that power can be produced cheaply. The only cost against it is the extra overhead charges brought about by the increased cost of the equipment. So we want to think of power in this question, in the terms of load factor. I am more interested in Brother Toms' statement about his actual operating cost than I am about a test demonstration, which falls down to the point of below one pound coal per kilowatt hour.

We are all running mills to make money. It isn't any test condition; it isn't any fancied figure that we want to set up here; it is the actual cost that it costs in a year for this mill to get out so many pounds of goods. Brother Spencer is facing a problem of some million yards of cloth per day, per week, on a certain power cost. That is in the problem as a finisher. It is the final cost that the president of the mill sets up. He is not so much interested in the kilowatt hour, but he wants to know how much it has cost him to run that mill during the year, how many kilowatt hours or how many dollars or how many cents per pound the goods have cost that he has produced. That is what is the thing he is after.

I am mighty glad to hear that statement regarding the cost.

I really expected to hear Mr. Spencer talk very seriously about the matter of this CO² and the quantity of power, but he does not seem to have raised his voice about these matters. (Laughter.)

COAL COST PER THOUSAND POUNDS OF STEAM

Mr. Rowan: Mr. Speaker, may I make a statement here in regard to these costs? About a year ago, I visited one of the steam generating stations, one of the larger manufacturers of the country of electrical equipment. They have a very complete power plant record on a basis of a thousand pounds of steam. As I remember the figures at the present time, their coal cost per thousand pounds of steam was about 21 cents. Their total cost per thousand pounds of steam, taking in the labor, supplies, even depreciation and everything, was about 47 cents per thousand pounds of steam. That was a relative value, that is the relative production of the coal.

Mr. Fox: Did that include fixed values? Fixed expenses, rather?

Mr. Rowan: Yes, and depreciation and everything else. They had a turbine there with a water rate of about

14 pounds, so you can very easily figure that their cost per kilowatt hour was pretty low.

Mr. Fox: May I make an additional remark, gentlemen? I hope you will pardon me. There is no question about the fact that the relative efficiency of operating steam plants has come down very remarkably in the last few years. If you figure the cost of operating a few years ago and the cost of operating today. I would like to inject this thought, however; and that is the thought that, notwithstanding that we have brought the efficiency of plants up and that the coal cost has decreased remarkably, it has been done at a tremendous expense. For instance, pulverized coal, and the hundred and one other things has raised the fixed charges of the investment so high to get lower efficiency that you realize that you just can't get something for nothing. If you are going to get higher efficiency, and lower operating cost, you must make up your mind that you will have to put in a tremendous amount of money into the plant.

THERMAL EFFICIENCY VS. DOLLAR EFFICIENCY

Mr. Rowan: Well, there is a difference between thermal efficiency and dollar efficiency. But, it is the efficiency as to the dollar in the end, as it is the total cost of steam per thousand pounds manufactured that determines whether a new plant is economical or whether the old plant is economical without the change. It is something that you can figure out and settle but there has been a lot of misinformation given but, evaporation if you look at it from a broader view, why it can be settled and can be determined and you don't have to guess about it.

POWER COST PER YARD OF GOODS

Chairman: There is one thought there that I would like to mention at this point. Mr. Fox said something about the reduction of cost per yard of goods. I would like to know how many master mechanics in here know what their power cost is per yard of goods at their plant. Hold up your hand. No one seems to respond. That is the way we figure our power cost, we take the yards of goods produced out of our plant, the goods loaded out on a box car and ready for shipment. I have a young man who worked for me in my office, and he could figure our cost on the plant work just last week per yard of cloth. I don't remember the figures right now offhand, but we have it there and we know exactly what our cloth costs us per ton of coal through our steam plant. We keep this record daily. And it is a mighty good system and it is mighty easily kept. You can know your cost of coal. We get it from the invoice weight, from the shippers. We don't take our coal and weigh it, but we keep track of our coal daily. We check it up at the end of the month on our invoice receipts and we figure our yardage per pound of cost, what it costs us per yard to put it out in cases ready for shipment. That means all steam heating and everything, to do that. Now, if you have any question, I want you to bring it out so we can all have a discussion on the matter.

CLEANING BOILER TUBES

Mr. Person: Mr. Chairman, I have never had the pleasure of going through Mr. Young's mill down at Albe-marle, until recently. I have now had that pleasure and I want to say that it is the best kept cotton mill, the most up-to-date cotton mill that I have ever seen. I would like to ask Mr. Young this question; that is, regarding the cleaning of his boiler tubes. How does he recommend that the tubes in a boiler be cleaned.

Mr. Young: We blow the tubes out every day. We scarcely ever use a brush; well, we might use it once in a season. Now, we use branch water, and we are very fortunate in having very good water. We scour them out about once a year. We took some out recently that had

been in for 22 years and they were in perfect condition and were not pitted and neither were the flues. But, as I said before, we are very fortunate in having good branch water there for our flue water and we are not bothered with that.

Chairman: Is there anybody here that has a subject or matter that he wants to discuss at this time?

INDIVIDUAL VS. GROUP DRIVES

Well, if you haven't, we will take up the question, "*Which is the best drive, individual drive or group drive properly arranged?*"

Now, what is meant by this is center drive, the V-belt or flat belt type, or whether it is more economical to have that drive where it is possible or a group drive.

Mr. Young: That brings up a big subject. I would not attempt to explain that question, as there are a lot of provisors in that, depending on what you want, and whether the advantage of individual drive is worth the difference. Of course, we all know the cost of individual drive is more than group drives. Just take spinning, for instance, individual drive with frame. Suppose you have 75 horsepower motors pulling spinning frames up against 12 10-horse power or seven and a half, as the case may be. Of course, you only use the efficiency of one motor on your group drive, you lose the efficiency on 12 motors on individual drives; and the big question is, there, as to just what advantage the individual drive is. You have flexibility there, of course, that you haven't got in the group drive, but when it comes to the cost of operating from a power standpoint, why the group drive is the most economical. I have not any direct figures, but I would say from the maintenance standpoint, too, because you have one unit in that particular case against 12, but the difference might be offset with the advantage of an individual drive.

We just recently changed over around a hundred thousand spindles from group individual drive. We took out in the spinning, for instance, 75 horsepower and 150 horsepower motors and put in all 10 horsepower individual speed type drives. We have an ideal drive. There is no question about that. They got the change that they wanted, but we certainly cannot operate that way now from a power cost standpoint, as economically as we could with the old group drive, because we lost the efficiency on 200 motors against probably 10 or 12 before. There is bound to be some loss there.

And, of course, there is the maintenance of belts. I am not in position to say much about that now because we have only been running individual drives for about a year and haven't had any expense at all, but for a man to say which is the most economical would depend entirely on what the value of the flexibility is. I would say a mill that is on 30s or 40s, a weave or warp mill, where they don't make any changes, I certainly doubt the economy of putting in individual drives. But if you are a hosiery mill and change every day or two or three times a day, and flexibility enters into it, why that is another story. It is very hard for any man to tell about this, unless he takes in all of the conditions.

Chairman: Well, Mr. Young brought out the thought, the very thought that I had about it. I think we all agree that in the matter of power that the individual drive is more expensive than group drive. That has been my experience, and I would like to know if any one in the audience has a maintenance cost of V-belts? What is the percentage of losses in repair in your V-belt?

LIFE OF V-BELTS

Mr. Kincaid: Mr. Chairman, about three years ago we were running 30 or 40 quilling machines with flat

belts. We have the best leather belts, 18-inch belts as I remember. Those belts would last about nine months. We had very short centers, and our speed was very, very high, I don't remember the number of spindles running, but we had 2400 a minute speed. We decided to change to V-belt, and did change. I don't know how long the V-belts are going to last. That was nearly three years ago. They told us that they would probably run a year or two years, but apparently they are going to last much longer. I have checked on them and it looks like they will last from three to four years. We have about 1120 small motors, and that is a very interesting thing to me, this short center drive. I am trying to get all I can out of this meeting and I am going to talk if somebody else does not. You fellows may laugh at me or do whatever you want to, but it is the only way I can get any information. What I want to know is, if any of you fellows in this room are trying V-belts on looms. We are using pinions from 13 feet up to possibly 18 feet, which is probably the highest. This is on novelty goods. And we have a variation in the size of pinions. I would like to know if anybody in this group, any of the boys that are here have used V-belts that way. I would like to know how substantial they have been on looms. We have tried it, but I would like to get a report from somebody else.

Chairman: I would like to ask Mr. Kincaid before he sits down, this question: Do you find that the recommendation of the V-belt people, what they recommend on certain loads, do you find that to be accurate, that is, sufficient to pull that load?

Mr. Kincaid: I do.

Chairman: Do you have to add any V-belts?

Mr. Kincaid: It is very gratifying to me, the data the folk have given us we bought the belt from. I don't mind being plain; I am not trying to sell any belts, either. But I have tried six different kinds of belts and probably this is not in order, but one particular belt, these people have been in business a number of years, and they have really gotten it down scientifically. I do not know who sells them in this particular vicinity, I know where I get mine from in Charlotte, but that belt is going to last us probably four years on this particular hard drive. We have to pull these belts on very, very tight. We were losing a good many motors because, as you folks know, this is very bad on motors. We lost more motors than we wanted to, by far, but we haven't lost a single motor since we have been on the V-belt, not one single motor. We don't have to put them on tight, as you know. And, also, we find the variation is from 1800, we ran down as low as 1800 occasionally. Now, with V-belts you don't find the variation over 25 or 30 turns on the speed we have got. It is very, very satisfactory on my part, on this particular job.

Chairman: Do you make your shoes or buy them?

Mr. Kincaid: We make and by them both.

Chairman: May I ask you another question? Do you use the same degree of angle on the different size pulleys or change it according to the diameter of the pulley?

Mr. Kincaid: We change according to the diameter of the pulleys, yes, sir. We change two degrees up to a six-inch pulley, to pull a six-inch.

Chairman: Has anybody else anything to say at this time? I wonder if Mr. Young wouldn't tell us why he made that change in the group he mentioned?

Mr. Young: As you know, we reframed the mill and put in new machinery and tried to modernize the plant. I hope that answers your question. Flexibility does mean something for us, whereas it wouldn't have meant so much if we had been in the weaving game where we

never change. In our mill, I believe the shipping told me this last week that we have some 86 different numbers. We spin everything from 4s to 100s and all kinds of twists, and flexibility does mean, in that case, something. And that largely determined their actions in going to the individual drive. Now, we have two mills also that have the four-frame drive, so-called group drive, and it has a pretty good chance to show a comparison. It all depends on how much flexibility is worth to you. Then, there is the standpoint of maintenance cost, the group drives are cheaper. If flexibility isn't worth anything, of course, that enters into it and that is why our people decided on the individual drive for a certain number of frames.

Mr. Southard: Mr. Chairman, I have charge of two mills, and at one mill we have group drives and at the other mill we have individual drives. We have had so much trouble with our group drive, oil from the motors, and belts giving trouble at the Dover Mill, but now we don't have any of that trouble at all. We have all of our spinning on individual drives, and we have been running for 12 years and never have had any trouble at all. And we have kept the cost down.

Chairman: Do you have any difference in your power consumption in the two mills, that is noticeably?

Mr. Southard: Well, none that I noticed. We have that 20 horsepower motor pulling two line cards and we have individual V-belts drives on that, and it has been in service three or four years, with the same set of belts that we installed on it when we put the drive on, and we have two tens that we have got the same drive on. They have been running somewhere near three or four years each. We had so much trouble with belts breaking that we had to change. When we changed, I had had so much trouble changing belts, I would have to uncouple my shafts to get on my belts, so I decided I would put on an extra belt, in case we had a breakdown, so that I would make a change without uncoupling the shafts. And that belt, or those belts, have been hanging up there ever since, for about four years. I expect they are rotten by now and in worse condition than those that have been running. (Laughter.)

Mr. Howarth: Mr. Chairman, we have been running several of those V-belt drives on 10 horsepower motors up to 50 horsepower motors. We have found this change to be very economical.

Chairman: Well, I think V-belts, like a lot of other things have their place. There is a lot in a thing being installed properly and with proper pulley dimensions and degrees of sheaves. Now, I know that it is very essential in this type of work that I am in, and the same with Mr. Spencer, and Mr. Campbell there, it is necessary that we have to have individual drives. Now, we have got some that have given us very good service. We have had some that didn't give us such very good service, but my experience has been that this type of drive, if I were to add on about two extra belts, why I always got by better. As far as my short center belt, flat belt drive is concerned, I have gotten wonderful results. I think I have 12 Rockwood drives in the two plants. On that Rockwood center drive it cost me 25 per cent more to install than it did the V-belt. And maintenance on those four drives has been \$228.64, that is the V-belt, and on the Rockwood drive there has been used five gallons of belt dressing in four four years. After the four years, I had one of those belts to go bad, it broke up, it showed a defect in the leather. The people that furnished that belt resupplied me with a belt at half cost, because they said it was defective, themselves. And that has been the most economical drive in

(Continued on Page 30)

Gum Arabic

A Few Facts Regarding Its Origin, Gathering And Marketing

By The Gum Department, Jacques Wolf & Company, Passaic, N. J.

Gum Arabic is the gummy exudation of *Acacia Verek*, one of the 400 or more known species of the *Acacia* family of which about twenty-five are to be found in the Sudan. It has been known and used since most ancient times, being employed by the Egyptians in the making of paint colors 2000 years B.C. It has been an article of commerce since the first century A.D. and since it was shipped to Arabian ports and thence to Europe received the name of Gum Arabic.

The *Acacias* are the chief constituent of the thorn forest of the Arid Zone, a belt stretching across Africa from Abyssinia in the east to French Senegal in the west and chiefly between 12° and 13° latitude. The best of the gum and the large majority of the crop comes from the province of Kordofan, although large quantities also come from Gedaref, Gezireh and Gallabat, this is not of such good quality, however. Gum Senegal also is shipped from the French Senegal and is very similar.

The trees grow to a height of from 12 to 15 feet in the Sudan, have a light gray bark and small feathery foliage with dark hooked thorns. Being a leguminous tree it is used much by the Arabs in the reclamation of waste land worn out by excessive cultivation. It is often cut down by the natives to make thorn fences for coralling animals. It also affords fine grazing for camels who appreciate the tender shoots. It is not raised much from seed but propagated by natural regeneration. The life of the tree is about 25 years, after which it usually succumbs to the attack of various insects and is finally destroyed by white ants. Growing in the sandy waste of this arid region it has to struggle for water and its long lateral roots are often as long as 20 feet.

The gum picking season starts after the rains are over and continues until the beginning of the next rainy season or approximately from October to May or June. The total rainfall governs in a great measure the size of the crop, after a season of heavy rain the crop will be small and vice versa. The time of starting tapping is governed to a great extent by the temperature following the rains, if it be hot the leaves will wilt and fall and the season will start.

The tapping is done as follows: The native will cut off with his axe the lower branches of the trees to give him access to them. Then he nicks the tree with his axe, taking care to cut just under the bark and not into the wood. He then lifts the edges of the nick and pulls one up and the other down the tree until they break off. If the weather is hot the gum starts exuding and in about three weeks to a month there will be sufficient gum to collect. If the weather be cold, a much longer time will elapse. The gum does not exude all along the wound, but only in spots along it and forms the tears which are crystallized by the heat. When the native sees there is suffi-

cient gum for collecting, he starts doing so and goes out at an interval of a week or so until the season ends. The women also help in the collection but do not do the tapping.

If the Arab owns a camel he takes it to market himself, otherwise he sells it to one who has, who takes it to market. Formerly, the sale of the gum in the market was a very crude proceeding, oftentimes the buyer using his leg which he said weighed so much as the weight in one of the pans of his scales. Since 1922, however, the Government supervises the auctioning of the gum in all the markets. The method is as follows:

When the Arab arrives at the market he is given a ticket with the number of the lot in which he is to place his gum. A record is also made on a form of the number of the lot and the Arab's name. Every bag in each lot is then opened and the merchants examine all the day's offerings. At a certain time the gates of the market are closed and a Government clerk opens the auction, starting with lot No. 1 and so on. When bidding has ceased the owner of the lot is asked if he will sell at that price. If so, the price is entered on his ticket and the form filled out. At the end of the auction the gum is transferred from the Arabs' skins to the merchant's sacks and weighed by the Government clerk in the presence of both buyer and seller and the calculation made. The buyer then must pay the seller. The auction seldom takes more than an hour and everyone is satisfied, whereas under the old system sales sometimes took all day.

After the weighing the merchant takes it to his own sheds, where it is cleaned, usually by pilgrims on their way to Mecca, and then put in double sacks and sent by railway to Port Sudan and thence to the markets of the world.

It is interesting to note that gum is only obtained from the trees when they are in an unhealthy condition. A healthy tree growing in a spot near water or on well fertilized ground will remain in leaf almost all year. If tapped, the wound quickly heals and no infection occurs. The gum is supposed to be the result of a bacterial infection of the wound which only takes effect when the tree is unhealthy. The method by which the infection is introduced seems to be a matter of varied opinion among authorities, some holding it to be from flies and ants which seem to swarm over the new wound, others advancing other theories.

Gum Arabic has a number of well known uses, some of which are pharmaceutical, confectionery, textiles (both as a finishing agent and in printing), as an adhesive, making of syrups, purifying of liquors, sizing, lithography, and manufacture of matches. The total consumption amounts to 15,000 to 20,000 tons per year, of which the U. S. A. uses at least one-fourth.

Pilot Boosters Club Have Fish Fry

The Pilot Boosters Club of the Pilot Mills Company, Raleigh, N. C., held their monthly meeting on September 28th, in the form of a fish fry, at a picnic grounds a few miles from Raleigh, with David Clark, editor of the Textile Bulletin, as the speaker.

On account of the football games Saturday the fish fry was at 12 o'clock noon with Mr. Clark making his address prior to the meal. Manager C. S. Tatum and Superintendent J. V. McCombs also made short talks.

Mr. Clark called attention to the fact that the Pilot Mills were located only a short distance from the home in which he lived when a boy and that the location of the mills was his playground before they were built.

A feature of the meeting was the presence of the girls soft ball team of the Pilot Mills which lost only one game last season. The officials and employees are very proud of that team.

An excellent meal was served as the products of cooks who knew how to prepare both fish and corn bread. Making good corn bread is a rare accomplishment but they had cooks who could do the job.

The following are the members of the Pilot Boosters Club of the Pilot Mills Company, Raleigh, N. C.: C. S. Tatum, J. V. McCombs, W. G. Westbrook, J. E. Cole, W. B. Warren, J. L. Beaver, E. T. Davidson, C. E. Danieleley, W. M. Wichardson, J. L. Denton, C. S. Howard, P. N. Hughes, H. H. Cross, C. E. Stell, Sam Riley, F. M. Inman, Ernest Covington, Bob Wilkins, Joe Dean, H. S. Cope, Ivey Watkins, E. F. Thomas, R. E. Butler, Silas Poole, Sam Eddins, Lonnie Phillips, G. T. Watkins, A. S. Watkins, A. S. Davis, W. H. Harrison, Willie Keith, J. W. Wells, Clyde Ricks, Grifton Macon, Cliff Stutts, Joe Nipper, S. H. Stell, Iowa Grady, Robert Moody, J. R. Phipps, Elbert Thompson, J. P. Peebles, S. H. Bryan, B. R. Pully, D. R. Edwards, S. H. Small, J. H. Thompson, J. B. Strickland, T. T. Baker, Joe Rosser, W. H. McLean, J. F. Kornegay, Douglas Small, Herman Meacham, C. C. Dail, Myatt Jones, L. G. Strickland, John Rouse, Lonnie Faison, John Hester, J. E. Baker, Leonard Speight, J. W. Mangum, O. B. Pope, J. P. McLean, Clyde Purdee, W. F. Danieleley, B. D. Denton, Hal Macon.



Booster Club at Pilot Mills

Picnic Enjoyed By Mill Families

Macon, Ga.—Described by George McCommon, mill president, as "the best rounded organization I have ever had," employees of Atlantic Mills brought their families to the mill yard Saturday and the more than 500 persons partook of barbecue and picnic lunch.

The annual affair was sponsored by mill executives and the Pivot Men's Club, organization of male workers in the mill. J. C. McCommon, who supervised mill operations during the recent illness of George McCommon, was general chairman for the event, assisted by T. B. Hunt, superintendent; Norman West, cotton buyer; W. J. Ward, an overseer; A. N. McAfee, Robert Clark, A. N. Vickers and others.

Conference of Deans of Textile Schools

The third semi-annual conference participated in by the deans of textile schools located in the South and New England, has been called for Tuesday, Wednesday and Thursday, October 22nd, 23rd and 24th, at Stockbridge, Mass.

This series of conferences is sponsored by the Textile Foundation as part of its program of co-operation with

the textile schools. The broad objective is to develop curricula and methods which will better qualify graduates to meet the demands of everchanging conditions in the textile industries.

The deans who have already indicated their intention to be present are: O. V. Adams, Texas Technological College, Lubbock, Tex.; J. H. Bagley, Texas Textile School, College Station, Tex.; E. W. Camp, Alabama Polytechnic Institute, Auburn, Ala.; Charles H. Eames, Lowell Textile Institute, Lowell, Mass.; W. D. Fales, Rhode Island School of Design, Providence, R. I.; E. W. France, Philadelphia Textile School, Philadelphia, Pa.; J. H. Handford, New Bedford Textile School, New Bedford, Mass.; C. A. Jones, A. French Textile School, Georgia School of Technology, Atlanta, Ga.; Thomas Nelson, North Carolina State College, Raleigh, N. C.; Henry W. Nichols, Bradford-Durfee Textile School, Fall River, Mass.; and H. H. Willis, Clemson Agricultural College, Clemson, S. C.

Discussion On Carding Omitted

Due to lack of space this week, the discussion on Carding, which has been running for several weeks, is omitted. It will be continued next week.

Memorial To Lafayette Lanier II

By David Clark

A BEAUTIFUL FOUNTAIN, erected at Langdale, Ala., by the employees of the West Point Manufacturing Company as a token of the affection and esteem in which they held the late Lafayette Lanier II, was unveiled on Thursday, September 26th.

The idea of the memorial originated with Rube Jennings, J. W. Johnson and Robert Johnson, who lived as neighbors of Lafayette II, in Langdale, but contributions were made by more than 6,000 of the employees of the mills at which Mr. Lanier was agent and in charge of the manufacturing operations.

As an introduction to the unveiling ceremonies, John W. Johnson made the following statement:

"Very soon after we began to recover from the shock of the untimely passing on September 16, 1930, of Lafayette Lanier II, whose memory will be forever enshrined in the hearts of those of us closest to him, the thought came of some memorial to this 'friend of man,' who was so universally beloved.

"Monuments which tell of his unfailing interest in the welfare of the people of the Chattahoochee Valley are to be found on every hand—churches, schools, hospitals, community buildings, amusement halls, athletic fields, playgrounds—but we wanted something different; some distinct memorial appropriate and exclusively dedicated to the unassuming character and noble qualities of this man, who was in a peculiar way the friend of all.

"Wise in counsel, sympathetic in spirit, with a genuine interest in humanity, men naturally came to 'Mr. L.' when perplexed or in trouble. He was accessible to all; in his office, on the highway, anywhere, and people came to him with confidence. So the idea was conceived of this marker in Lafayette Lanier II, Memorial Park, located 'by the side of the road' which winds its way through the valley, past the several objects of his especial love, and by this beautiful stream in Langdale, where for so many years he made his home.

"This memorial is a tribute of love and appreciation to the memory of the man who so nobly and unselfishly served the interests of all our communities—Lafayette Lanier II."

MR. REEVES SPEAKS

Judson J. Reeves, on behalf of the employees of the West Point Manufacturing, said:

"I deem it a great privilege to pay tribute today to the memory of one whom I looked upon as a comrade, and to represent and speak for the employees of West Point Manufacturing Company.

"For fifty years I have been one of those employees and during all of his life I knew Lafayette Lanier II. I watched him grow from childhood to boyhood and into mature manhood; in his earlier years he worked with us in the spinning and at the looms, gaining the practical experience that helped him later on to take his place of responsibility as an official of our great corporation. Known affectionately to many of us as 'Mr. L.," he was a friend to all of us and we grieved when he passed on.

"As efficient manager of textile plants, with an expert knowledge of machines and manufactures, he was, beyond that, a director of men. But he directed by leading, he never drove. His contacts with those who were under him, his consideration for them, his sweet character, made leadership easy for him and not irksome for those who followed. We knew him to be just, we knew him to be honest, we knew him to be sympathetic. And we knew that always the door to his office was open to us.

"His was a genial disposition and I think I never saw him in anger, though he could be stern if the occasion required it. He lived fully and he got joy out of his work and out of his association with those who shared his work. We knew that he was an official in high place in a great industrial plant, but we looked upon him as very near and close to us, participating in the things we did, concerned for our welfare. And in times of stress and storm in our individual lives we did not hesitate to call upon 'Mr. L.' And never did he fail to answer.

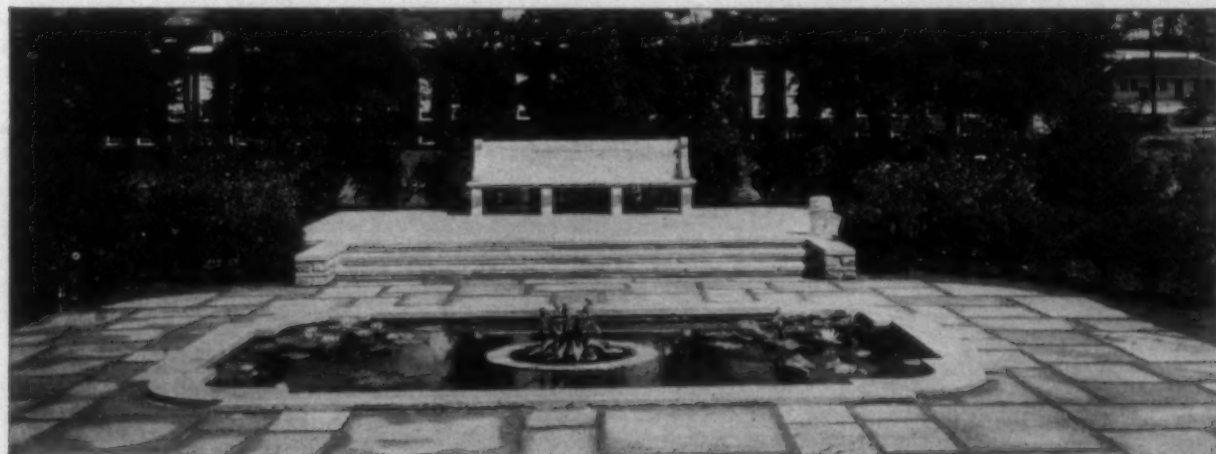
"And so it is that today the employees of West Point Manufacturing Company can, with pride and sincerity, join in the eulogy of Lafayette Lanier II. We are glad to have had a part in creating this memorial for thereby we honor ourselves and help to give evidence to those who come after us of the greatness of his soul."

PRESENTATION ADDRESS

The Presentation Address was made by John V. Denson of Opelika, Ala., and was as follows:

"It is a high privilege to be permitted to speak today for the donors of this park and its accompaniments, de-

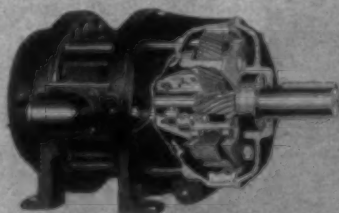
(Continued on Page 16)



MEMORIAL TO LAFAYETTE LANIER II AT WEST POINT, GA.

Tailor-made for finishing plants

WHICH MOTOR DO YOU NEED ?



GEAR-MOTORS permit a wide choice of speeds from 600 down to 11 rpm. Available in single-phase, polyphase, and direct-current ratings, there is a G-E gear-motor for virtually every low-speed drive



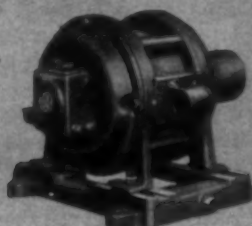
DIRECT-CURRENT ADJUSTABLE-AND CONSTANT-SPEED MOTORS are available for a wide variety of heavy-duty applications



BTA BRUSH-SHIFTING MOTORS, manufactured exclusively by General Electric, offer wide ranges of speed and easy speed adjustment



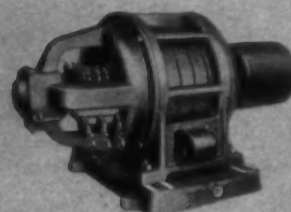
TOTALLY ENCLOSED, FAN-COOLED MOTORS are recommended for use in severe moisture conditions. They are effectively cooled through the use of external-fan ventilation



SQUIRREL-CAGE INDUCTION MOTORS—simple, sturdy motors for your general-purpose applications



SPLASHPROOF MOTORS are designed for use where there are splashing or dripping liquids



WOUND-ROTOR INDUCTION MOTORS provide an economical means of adjusting speeds, over a limited range, for loads that do not have pronounced torque fluctuations

DRIVES FOR ALL FINISHING MACHINES

EVERY finishing-plant requirement has been taken into account in the construction of these motors. There are types for all finishing uses—drives that will reduce your operating and replacement costs and give many years of trouble-free performance.

MOTORS FOR ALL FINISHING USES—with calenders, tentering ranges, soapers, mercerizers, mangles, dryers, printing machines, padders, dyeing machines, Sanforizers.

The savings these economical, dependable motors will enable you to effect are the result of scientific design, and years of research in General Electric laboratories. The nearest G-E office will be glad to supply further information; or, write General Electric, Schenectady, N. Y.

011-63

GENERAL  ELECTRIC

Personal News

E. B. Wise, of Egan, Ga., is now overseer carding and spinning, Conestee Mills, Conestee, S. C.

C. L. Jolly has been promoted from assistant to superintendent, Rivedale Mills, Enoree, S. S.

H. J. Knight, formerly of LaGrange, Ga., has been promoted from section to second hand, Milstead plant of Gallaway Mills, Milstead, Ga.

William E. McLeod has joined Hayward, Mackay & Valentine, New York sales agents, and will handle the account of the Eagle and Phenix Mills.

B. S. Pearson, formerly of Gossett Mills, Anderson, S. C., is now overseer carding, second shift, Anderson Cotton Mills, Anderson, S. C.

L. M. Manley, of Anderson, S. C., has accepted the position as overseer carding and spinning, Kenneth Cotton Mills, Walhalla, S. C.

W. O. Pridmore is second hand in weaving at the Judson Mills, Greenville, S. C., and not overseer, as was stated last week.

Mrs. Ethel Thomas Dabbs (Aunt Becky) of the Textile Bulletin staff is suffering from an injured foot and has not been able to visit the mills for the past ten days.

J. W. Trigg, formerly of the High Shoals Mills and with Meritas Mills, Columbus, Ga., has accepted the position of superintendent of Oconee Textiles, Inc., Westminster, S. C.

New Officers of Georgia Group

At the meeting last Saturday of the Textile Operating Executives of Georgia, J. C. Edwards, general superintendent of the Martha Mills, Thomaston, was elected general chairman; V. J. Thompson, superintendent of Callaway Mills, Manchester, was elected vice-chairman, and C. K. Cobb, superintendent of the Canton Mills, a member of the executive committee. R. W. Phillip was re-elected secretary.

Steel Hedd'e Expanding

The Steel Heddle Manufacturing Company, general offices and main plant, Philadelphia, Pa., with other plants in Greenville, S. C., and Montreal, Canada, has acquired a large interest in the Atlanta Harness & Reed Mfg. Co. of Atlanta, Ga.

The Steel Heddle Manufacturing Company plans to use this plant for experimental purposes in developing new articles used by the weaving and spinning mills in the South. It is well known that the Steel Heddle Manufacturing Company, now in existence almost 40 years, has been greatly instrumental in improving weaving conditions among the textile mills, which is evidenced by the many patented articles covering heddles, frames and accessories, developed through the efforts of their engineers.

In assuming the supervision and management of this plant it is with the intention of maintaining the quality for which they are well known, of all products manufactured by the Atlanta Harness & Reed Mfg. Co., which has enjoyed for years an excellent reputation among their clientele.

The Atlanta plant will continue to produce both cotton

Mill Men Worth Knowing

A series of pictures taken at random by representatives of the Textile Bulletin.



Z. F. Cranford, Superintendent Cora Plant, Textiles, Inc., Kings Mountain, N. C.

and steel harnesses with up-to-date equipment, and together with real supervision of quality of twine and finish, mills still using this type will be interested in the high standard of this article.

The Atlanta Harness and Reed Manufacturing Company will maintain its own selling arrangement and carry on independently from the Steel Heddle Manufacturing Company until such time when a consolidation is necessary for the benefit of the trade.

Guy P. Carmichael has been appointed general business manager. He is well known to the trade, having been connected with the Atlanta Harness & Reed Mfg. Co. for quite a number of years, and since it is the most sincere endeavor of the Steel Heddle Manufacturing Company to make their own keynote "Service and Quality" a slogan for the Atlanta concern also, there is no question that both concerns will be greatly beneficial to the Southern textile mills.

Hosts To Master Mechanics

The luncheon enjoyed by the Master Mechanics' Division, Southern Textile Association, at the Gastonia meeting, was tendered through courtesy of the following firms: Cocker Machine & Foundry Co., Bryant Electrical Repair Co., Norlander Machine Co., Ferguson Gear Co., Barkley Machine Co., Stewart Machine Co., Long & Long Tin Shop, Rich's Welding Plant, F. C. Todd Textile Machinery Agency, Gossett Machine Works, Piedmont Iron Works, Gastonia Roller Flyer & Spindle Co., Ideal Machine Shop, Gastonia Textile Sheet Metal Works, Excell Machine Co., Gastonia Mill Supply Co., John S. Jenkins & Son Tin Shop, Welders Supply Co.

Marshall Dilling, executive secretary of the Association, presided at the lunch. The feature speaker was Wade Saunders, Gastonia lawyer-humorist.

Attendance prizes were drawn by J. H. Southard, Shelby, J. H. Cook, Cooleemee, and W. L. Henson, Taylors, S. C.



FREE ON REQUEST

REEVES presents a new reference book on variable speed control—the most complete and helpful book on this subject ever published.

Handy in size and serviceably bound in blue cloth stamped in gold, this new Handbook contains 112 pages and more than 200 illustrations.

Regardless of the type of product you manufacture, this Handbook will be of interest and value to you. It gets right down to the brass tacks of variable speed control—what it is—how it is engineered and applied—and the

remarkable advantages it offers. This book is written out of the experience of REEVES engineers in applying infinite speed adjustability to more than 75,000 machines and in assisting over 1100 machine builders to incorporate speed control as standard equipment.

Every production executive, purchasing agent, machine designer and plant superintendent should have a copy. Since this book is being distributed free only to those who request it, we suggest that you fill out and mail the convenient coupon at right.

REEVES VARIABLE SPEED TRANSMISSION

Many NEW FEATURES in this Handbook

Here are a few of many new features that make it important for you to have this Handbook:

- The requirements of modern speed control equipment—a valuable check list to use in selecting the most efficient methods and units.
- Description and pictorial presentation of the complete line of REEVES Speed Control Equipment—designs, controls, speed ratios, sizes—developed to meet the specific requirements of hundreds of machines and manufacturing processes.
- H. P. ratings and speeds stepped up on REEVES Variable Speed Transmissions, providing greater capacity per unit.
- Hydraumatic Control—a new hydraulic automatic control of high sensitivity and positiveness operating from extremely slight indicating movement.
- Improved endless cord V-belt giving greater strength and capacity, longer life, to this vital part.
- New type frame construction enabling easier installation or removal of V-belt and other operating parts.
- Improved electric remote and automatic controls with more compact mounting of control equipment.
- Force-feed lubrication system on open design REEVES Transmissions.
- Complete data on the REEVES Vari-Speed Motor Pulley, the efficient, simplified unit for direct installation on motor shaft.
- Engineering data in convenient form for reference—tables for selecting correct size and class (speed range) of REEVES Transmission for any machine application. Complete dimension diagrams of various REEVES designs, efficiency charts, etc.

USE THIS HANDY COUPON

REEVES PULLEY COMPANY
Columbus, Indiana

Please send FREE copy of your new Speed Control Handbook 2-35.

Name

Title

Company

Street

City.....State.....

Memorial To Lafayette Lanier II

(Continued from Page 12)

signed to perpetuate in the remembrance of men the life, the works and the character of Lafayette Lanier II.

"It was my good fortune to know him, and I took pride in counting myself among his friends.

"It has been said that each of us plays a part in life, as though upon a stage. Many must be obscure; others are content with a word though it has no meaning; these pass off and are forgotten. But a few there are, majestic and noble in spirit, who stand out from the crowd and leave deep impress that remains even when the play is over. Of these was Lafayette Lanier II.

"Stricken in the prime of his life, with years of usefulness yet ahead, his passing brought grief and sorrow and regret; these sentiments have not left us but the years that have passed, though they be few, have intensified the realization of loss and have enabled us to more calmly appraise and appreciate the value of the man to the world in which he lived.

"Affectionate, tender and true in his family relationships, his home was a paragon of domestic felicity, the seat of the greatest joys of his life, and there he spent his happiest hours. He did not need to seek the exotic nor to go in quest of shadowy adventure to make life livable; he was contented because his home and his household were happy.

"Destined from birth, educated and trained for high place in the world of industry, his conception of his position never stressed, perhaps never included, the idea of his possession of power over men; rather did there loom large his feeling of responsibility for the welfare of those whose labors he was to supervise. And so much did he participate in the lives of the workers that they seldom visualized him as a part of the directing force that kept their earnings coming in; rather, they looked upon him as their friend and protector and out of this relationship there came to him unrealized power and a value to the great textile organization in this valley that will remain for many years to come to bless both employer and employee.

"As a manufacturer he took high rank among those of the country who were prominent in the world of textiles; they recognized in him a man of outstanding ability. More particularly, in the great organization of which he was a part he had a special field where always his judgment was the indispensable guide for action; more and more, as the years went on, did those in higher command come to rely upon his counsel and advice.

"As a man among men he was loved and trusted; by nature he was a sociable being and the pure joy of living came to him through his contacts with his fellows. He loved the out-of-doors and sought it often. He was interested in boys and youth and gave of his time and means to make the way easier for them and to add to their happiness. He was interested in the common welfare of the community and no civic venture went without his aid and encouragement.

"And he revered God and kept His commandments.

"To know Lafayette Lanier II was to be his friend; to know him well was to love him; for his character and disposition were such that, more than most of us, he attracted men to him and once within the orbit of his personality there was no withdrawing. Unselfish and generous in thought and deed, he evoked no envies, no jealousies; simple in his life and ways of living, he waged no conflict with the 'higher thought' or the complexities of modern 'higher society'; honest and true to himself and

tolerant of his neighbor's opinions, he created no hates or enmities; gentle and sympathetic, devoid of pretense and artificiality, he endeared himself to the men and women among whom he lived and worked. No facets were needed to adorn his character; no hidden thing lurked in his heart; and he deserved the encomiums that his friends bestowed upon him. He has left for his wife and his children the abiding heritage of a life well and honorably spent.

"Like his father before him, Lafayette Lanier II inspired the admiration and respect of those who knew him and, in particular, of the people who make up what we call the Chattahoochee Valley; he was a dominant factor in much of the life and work of this people; to do him honor gratifies their sense of propriety. And it is fitting that here in Langdale, in the midst of surroundings that were dear to him, where he lived and labored, this memorial to him should be erected. Simple in design, strong and sturdy, with a suggestion of peacefulness, it is like the calm, unworried, helpful life he lived. Its creation has been a labor of love; it comes from the warm hearts of all the people, from the inner urge to perpetuate the remembrance of one who wrought well among us and who, for a while, has gone away; it is the result of impulses that would not be stilled. All of us take solemn price in the fact that a duty owed to him has been performed.

"And now, in behalf of the committee that was in charge, and in behalf of the people of the 'Valley,' I present to Mrs. Lanier and to her children, these enduring monuments, symbols of the peoples' love for Lafayette Lanier II and their tribute to his greatness."

A short address of acceptance was made by Lafayette Lanier III, now about seventeen years of age, in which he said:

"On behalf of my mother and the members of my family I bring our heartfelt thanks to each one of you who had a share in the creation of this beautiful memorial. I find it exceedingly difficult to think of words which will fully express our sincere appreciation of this visible evidence of the high esteem in which you hold the memory of my father.

"The deepest thoughts are often unexpressed; therefore, you would have to look deep in our hearts to sense our gratitude in its fullest extent. But we do want you to know that we are grateful to every one who contributed to this splendid memorial in any way—by his time, efforts, money, sympathy, or his presence. We offer real appreciation to those who conceived the idea of dedicating a place in God's great out-of-doors as a symbol of friendship. We wish to thank all of the friends who gave so willingly of their time and efforts, those who by their individual contributions have brought this memorial into being, those who have touched our hearts by their tributes and kind words and the children who have had a part in the dedication ceremony, and all of you who bear silent testimony of your love, sympathy, and loyalty by your very presence here today.

"This enduring symbol that our father still lives in the hearts and minds of his friends will ever be a truly great inspiration, one which we shall never forget."

The beautiful memorial was then unveiled by two young sons of Lafayette Lanier II and the fountain spray and its lights turned on.

Among those as guests of honor at the unveiling were, beside Mrs. Lafayette Lanier II and her children, Mrs. Lafayette Lanier, Sr., mother of Lafayette Lanier II, and his brother, George Lanier, president of the West Point Manufacturing Company.

(Continued on Page 24)

ANNOUNCING



the **FIRST automatically self-cleaning ATOMIZER**

The new Amco No. 4 Atomizer is the first atomizer in which *both* air and water nozzles are automatically cleaned whenever the compressed air supply is shut off. It represents a distinct step forward in efficient, dependable humidifying devices.

Better Spray

This new Atomizer delivers and maintains its full rated capacity of unequalled smoke-like spray. Good nozzle design, smooth finish and exact centralization of air and water orifices produce a spray of exceptional fineness, intimately mixed with the air of the room and projected a long distance.

Automatically Self-Cleaning

Quality and quantity of spray are maintained even under adverse conditions because this atomizer is automatically self-cleaning. When the compressed air supply is shut off, either manually or in response to a humidity control, *both* air and water nozzles are thoroughly cleaned.

No Drip— No Feathering Down

The new AMCO No. 4 Atomizer eliminates the objectional drip or feathering down when the air pressure is shut off.

Atomization does not begin until sufficient air pressure is present to produce a good spray, and, on stopping, atomization ceases before the air pressure drops to a point at which good spray is impossible.

Improved Construction

This new Atomizer is unique in its construction. The nozzles are surrounded by a smooth, concave, hemi-spherical surface protecting them from injury and preventing the accumulation of lint and fly which is swept away by the rapid, streamlined currents of induced air.

All working parts are made to close limits, of metals which are durable as to erosion, mechanical wear and corrosion. All joints are metal to metal accurately machined to assure tightness without the need of gaskets.

The outside bronze body is simple in design, easy to clean and attractive.

For New Work or Replacement

Conforming to standard practice in capacity, air pressure required and air consumption and also in air and water connections the new AMCO No. 4 Atomizer offers new possibilities for more efficient humidification in new work or on present systems.

Advantages

The use of this improved Atomizer will result in better atomization, assurance of maintenance of capacity delivery, elimination of manual cleaning labor, and no waste of power.

We shall be glad to demonstrate the superiority of this new Atomizer or to supply descriptive literature.

AMERICAN MOISTENING COMPANY

Established 1888

BOSTON, MASS.
ATLANTA, GA.

PROVIDENCE, R. I.

CHARLOTTE, N. C.
GREENVILLE, S. C.

Another evidence of the progressiveness and leadership of the American Moistening Company in producing efficient humidification equipment for the Textile Industry.

TEXTILE BULLETIN

Member of

Audit Bureau of Circulations and Associated Business Papers, Inc.
Published Every Thursday By

CLARK PUBLISHING COMPANY

Offices: 118 West Fourth Street, Charlotte, N. C.

DAVID CLARK	Managing Editor
D. H. HILL, JR.	Associate Editor
JUNIOUS M. SMITH	Business Manager

SUBSCRIPTION

One year, payable in advance	\$2.00
Other Countries in Postal Union	4.00
Single Copies	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Opportunity For Profits

THE increasing volume of business done in cotton goods for the past several weeks has been very encouraging. Business has been large enough in some lines to bring about a marked shortage of goods for prompt delivery. Stocks of almost all constructions have been materially reduced. At the same time, buyers have been looking farther ahead and unfilled orders show a good increase.

While prices have advanced considerably, they have not yet reached a point that shows a satisfactory margin of profit. The trade is very hopeful that continued buying will bring about a situation in which the mills may improve their merchandising policies. It is recognized that even when business is active, mills often sell goods at low prices in order to secure needed funds. These low prices naturally tend to weaken the whole market. The temptation to swap goods for cash, on a basis of "breaking even," is often a strong one. Apparently too many mills are satisfied if they can operate on a break even basis.

The long struggle of the mills to keep their heads above water has brought conditions under which the idea of making profits is secondary to the main idea of "getting by." As long as demand was slack, stocks large and the market wobbly from numerous uncertainties, little could be done to correct the condition. Curtailment was the only sensible step. While curtailment is always a purely defensive move, the long pe-

riod of short time has been a strong factor in getting the market on a healthy basis.

Now that demand is so much more active and bids fair to carry well through the fall months, mills can take advantage of the opportunity to get their selling policies in order.

Profits must be made if the industry is to live and careful attention to production and sales methods should bring gratifying results within the next few months.

Machine Tool Sales Indicate Improved Business

MOST authorities agree that an increase in the sale of machine tools is an indication of an improvement in general business conditions.

In a recent report the *Brookmire Business Service* says:

The production of machine tools is now back to the level prevailing in the latter part of 1929, and the substantial forward surge that has occurred during the current year is a good indication that higher general volumes are approaching. With the tool business at current levels, this industry alone is contributing a sizable volume of business to the iron and steel trade, but the chief interpretation of the figures is that other industries are preparing for a better volume of business, and a return of profits.

From another service, the *Dartnell Sales Forecast*, we quote:

Machine tools, always a dependable barometer, are running more than 200 per cent ahead of a year ago.

On the principle that business men do not buy equipment unless they can definitely foresee a profitable expansion of operations, we interpret this as the carefully considered belief by industrialists that we are definitely out of the depression and that the expected rise in fall business activity will carry well into 1936. Hand in hand with the increased buying of equipment there is increased retail buying.

An Influence For Low Acreage In 1936

THE following seems to be a situation which will have an influence upon the 1936 cotton acreage:

All farmers who sign agreements to control their cotton acreage in 1936 will get early next year a cash payment on their Bankhead allotments equal to the difference between 12 cents and the average market price of cotton from September 1st to January 1st. This new transaction has no connection with previous loan transaction. The money to make these payments

will come from 30 per cent of customs receipts amendment to AAA Act.

All farmers who are AAA cotton contract signers will get their AAA benefit payments. They will get "guarantee" payment if they sign up for next year, and automatically will be eligible for 9-cent loans.

The above is viewed by many as a powerful incentive for acreage control in 1936 and make the question of the Bankhead Act legality, relatively unimportant.

It will remove the major long term bearish influence on cotton and enable the AAA to put over a greater reduction program than would have been possible under the Bankhead Act alone.

It is claimed that price will be free to fluctuate within the calculable limits of price of the new crop, roughly between 10.5c and 13c—10.5c because of reasonably expected supply and demand conditions, and 13c because farmer owners of CCC cotton probably would sell at 13c-plus.

It is also said that by reason of the above situation the chances of moving part of 5,000,000-bale commodity credit holdings in 1936 at 13c-plus are greatly increased.

Memorial To Lafayette Lanier II

THE memorial fountain erected to Lafayette Lanier II, in front of the Langdale Mills of the West Point Manufacturing Company, as noted on page 12 of this issue, is beautiful and artistic, but the thing which impressed us most about the affair was the sincerity of the employees of the mills in desiring to honor his memory.

While we have had the pleasure of knowing intimately, that very fine and outstanding citizen of the South, Geo. H. Lanier, president of the West Point Manufacturing Company, we never came much in contact with his brother, the late Lafayette Lanier II, who was agent of the same company.

While Geo. Lanier handled the business end, from the office in West Point, Ga., Lafayette Lanier II looked after the manufacturing end and therefore came in close touch with the employees.

He must have been an exceptional man with an unusual personality, for it seems that every employee loved him, and the memorial fountain is an expression of their affection.

The superintendents such as Rube Jennings welcomed his visits and even the doffer boys smiled when they saw "Mr. L." coming; in fact,

it is said that he could call almost every doffer by his name.

The family of the late Lafayette Lanier II must be very proud of the esteem in which he was held and of the memorial which has been erected to him.

The Unemployed

The National Industrial Conference Board, whose figures for the unemployed have always been low as compared with the figures furnished by the American Federation of Labor, issued the following table in August of this year:

September, 1933	9,920,000 unemployed
January, 1934	10,538,000 "
September, 1934	10,218,000 "
January, 1935	10,142,000 "
May, 1935	9,711,000 "

What has been gained by giving away several billion dollars if unemployment is practically the same as before the expenditure?

It is our opinion that restoring confidence and allowing business and industry to proceed along normal lines, that is, with the expectation of securing reasonable profits through the investment of funds and the employment of labor, will do more to reduce unemployment than Government expenditures.

Tired

(Reprint from *Northwestern Miller*)

I'm tired, oh, so tired of the whole "new deal,"
Of the juggler's smile and the barker's spiel,
Of the mushy speech and the loud basson,
Tiredest of all of our leader's croon.

I'm tired of the tax on my ham and eggs,
I'm tired paying toll to political yeggs,
Tired of Jim Farley's stamps on my mail,
Tired of my shirt with the tax-shortened tail.

I'm tired of the daily increasing debt,
I'm tired of promises not to be met,
Of eating and sleeping by Government plan,
I'm tired of forgetting the forgotten man.

I'm tired of every new "brain-trust thought,"
Of the ship of state turned into a yacht,
I'm tired of beating the courts by stealth,
And terribly tired of sharing the wealth.

I'm tired seeing Eleanor on page one,
Of each royal in-law and favorite son,
I'm tired of Sistie and Buzzie Dall,
Nobody knows how I'm tired of it all.

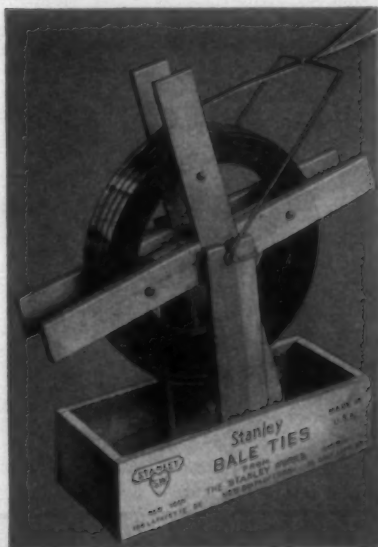
I'm tired and bored with the whole "new deal,"
With its juggler's smile and its barker's spiel,
Oh, Lord out of all Thy available men,
Please grant us a Cleveland or Coolidge again.

"COILED DOUBLE"

Stanley Bale Ties "Coiled Double" offer many time and labor saving possibilities for the operator. Two lengths can be uncoiled, measured and cut in half the time required for coiled single.

Round Safety Edges and Round Safety Ends eliminate the possibility of dangerous cuts and scratches to the operator.

The following additional features have been responsible for many mills standardizing on the Stanley Bale Tie System:



- Rust-resisting
Japanned Finish

- The Stanley Round
End Cutter

- Exceedingly strong
Sealed Joints
that lie
perfectly flat

- The Stanley Sealer
which exerts
super-pressure

Let us show you the superior features of this system

THE STANLEY WORKS
New Britain, Conn.

Atlanta Office:
THE STANLEY WORKS SALES CO.
552 Murphy Avenue
Atlanta, Ga.

Carolina's Representative:
HORACE E. BLACK
P. O. Box 424
Charlotte, N. C.

STANLEY BALE TIE SYSTEM
TIES - - - - SEALS - - - - SEALERS

Mill News Items

HICKORY, N. C.—The Preslar Hosiery Mills have been incorporated here by W. F. Preslar, Mrs. Isma Preslar and D. W. Preslar.

ROCHINGHAM, N. C.—The Grenaco Knitting Mills have been incorporated here with an authorized capital of \$100,000, of which \$20,000 has been subscribed. Incorporators are John L. Everett, S. Clifford Johnson and John L. Everett, Jr.

GRANITE FALLS, N. C.—Granite Falls Manufacturing Company have ordered special spraying device from Borne, Scrymser Company, 17 Battery Place, New York, for treatment of special cotton stocks in their line of business.

CLIFFSIDE, N. C.—Cliffside Cotton Mills have ordered additional spraying equipment from Borne, Scrymser Company, 17 Battery Place, New York City, to be used in conditioning dyed cotton.

BATH, S. C.—The mill at this place formerly owned by the Aiken Mills, Inc., have been reorganized under the name of the Bath Mills, Inc. The superintendent is W. Beaumont, with D. A. Purcell as assistant superintendent.

LANGLEY, S. C.—All of the stock in process has been run off the machines of the Aiken Mills of this place and it is closed indefinitely. It is reported that the bondholders will take over the plant on November 1st.

CLEVELAND, TENN.—Fire from an overheated dryer burned four machines in the carbonizing department of the Hardwick Woolen Mill here late Monday night, doing several thousand dollars damage. Water damaged a large quantity of wool. The department is located in a two-story brick building which was not burned to any extent, but the flame, carried to the outside by an exhaust fan, was so hot that it set fire to a box car alongside the mill building. In the carbonizing department, the cotton is removed from wool by acid, and the wool is then dried out.

ANDERSON, S. C.—The Gluck division of Wellington Mills, Inc., has begun the use of electrical power in place of steam power in operation of the spindles and looms of the mill. The entire machinery of the mill has not been put on the electrical current, but will be shifted over as soon as arrangements are perfected.

MERIDIAN, MISS.—The J. W. Sanders Cotton Mill will reopen soon. About 200 operatives will be given employment.

Announcement was made by R. H. Williams of Concord, N. C., manager of the mill operations, that the present force of 125 would be engaged for a couple of days in doing general repair work on machinery after which full one-shift operations will begin.

The manager stated that in connection with additional employment in the future, a second shift will be put on, providing business "proves profitable." The machinery in the plant, he stated, is in fair condition after being out of use for about ten months, following the strike in November, 1934. The addition of a second shift will mean employment of about 400 operatives.

Mill News Items

CLEARWATER, S. C.—The Seminole Mills are idle with the exception of a small portion of the spindles and about 35 looms which are being operated on spun rayon.

LAUREL HILL, N. C.—Edwin Morgan, president of the Morgan Cotton Mills, announces that Bliss Fabyan & Co., Inc., is being appointed sole selling agent for the decorative and upholstery fabric product of this group, which comprises three units, Ida, Springfield and Richmond.

ROCK HILL, S. C.—According to an announcement, conservator-receivers of the defunct Central Union Bank have begun seeking appointment of a receiver for the Victoria Cotton Mill of Rock Hill. A hearing will be held on the matter before Judge J. Henry Johnson at York, S. C., it is understood.

The conservator-receivers have begun foreclosure proceedings on a mortgage they hold on the mills and are asking that in the meantime a receiver be appointed. Attorneys for the mill are opposing the appointment of a receiver and also the selling of the mill at present and the subsequent throwing of the mill's operatives out of employment.

Representing the Central Union conservator-receivers is the law firm of Melton & Belser of Columbia, S. C.; representing the Victoria Mill, Dunlap, Dunlap & Roddey of Rock Hill, and R. B. Hildebrand.

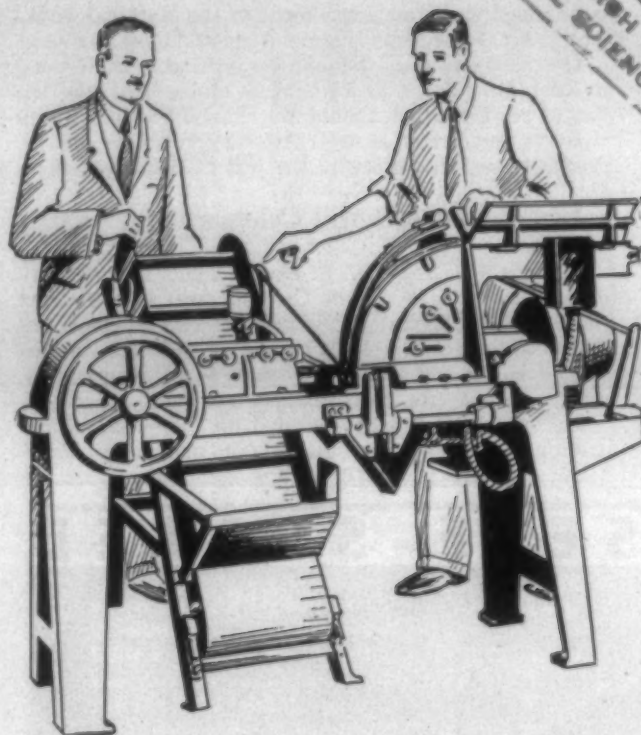
HIGH POINT, N. C.—The Burlington Mills Company, largest producer of rayon goods in the world, has acquired the No. 2 plant of the Stehli Silks Corporation, and will immediately install 250 looms and will bring the plant into operation in the late fall, it was learned here.

Despite the fact that J. Spencer Love, president of the Burlington Mills Company, could not be located for a statement, it was authoritatively learned that the transaction was completed in New York, where both the Burlington and Stehli organizations maintain offices. Operation of the mill will furnish employment to approximately 150 persons when normal production schedules are reached. Resumed operation will follow more than six months of idleness since the entire Stehli layout here was closed last spring.

Workmen began clearing the unit preparatory to receiving the looms which the new operators will ship in shortly. Some observers see in this acquisition of the smaller mill a step which may ultimately bring the entire large Stehli plant into hands of the Burlington Mills Company.

CLINTON, S. C.—Federal Judge H. H. Watkins signed an order in Greenville halting the plan of reorganization recently approved for Lydia Cotton Mills. Government officials secured the order on the grounds that the reorganization plan conflicted with two Congressional amendments. C. C. Wyche, United States District Attorney for the Western District of South Carolina, signed the petition for the order.

The petition stated that under an amendment to the AAA by Congress on August 24th, the Lydia Mills should immediately pay all processing taxes and other levies now due, instead of setting them aside pending court decisions on the validity of the AAA assessment. The second objection related to the installation of the reorganization plan without approval of the Secretary of the Treasury,



INSTITUTE FOR
RESEARCH IN
SOCIAL SCIENCE

Estimated Saving . 100 %
Actual Saving . . . 200 %

One of our salesmen reports a mill that recently traded its Double-end Utsman machine for the new Type K was able to eliminate two men on each shift.

In addition to this, the salesman was able to save them another man on each shift by suggesting a change in the location of the machine.

Thus, the saving per year of over 100%, as originally contemplated, was increased to over 200%.

Type K has a speed of from 100 to 120 bobbins a minute. No mill can afford to be without it.

Write for Bulletins about

the new TYPE K Bobbin Stripper

The Terrell Machine Co., Inc.

**1200 North Church Street
CHARLOTTE, NORTH CAROLINA**

MR. LUTHER PILLING, Danielson, Connecticut, Representative for
N. Y., N. J., Pa., New England States, and Canada

GEORGE THOMAS & CO., LTD., Manchester, England, European Agents

as provided under an amendment to the National Bankruptcy Act, passed by Congress August 29th of this year.

The management of the mill was ordered to show cause at Rock Hill, S. C., at 11 a. m., October 7th, why the plan of reorganization should not be modified to conform with the requests of District Attorney Wyche. The revised plan was approved by the jurist here last week.

Sanford Mill Celebration

Sanford, N. C.—Dr. R. B. House, administrative dean of the University of North Carolina, was the principal speaker at the annual barbecue tendered the employees of the Sanford Cotton Mills by the mill officials on Saturday evening, and attended by more than four hundred, including employees, their families and guests.

The Sanford ball park was used for the occasion, and here long tables with comfortable seats and electric lights

were arranged. R. P. Dicks, president of the mills and toastmaster, welcomed the guests and expressed the appreciation of the officials of the mill for the loyalty and co-operation of the employees.

H. C. Powers, an employee of the mill, expressed the deepest appreciation of the workers for the courtesies and kindnesses shown the employees and their families by the officials and department heads of the mill. Others who spoke briefly stressing the mutual goodwill and co-operation which prevail between the officials and employees of the mill were: Mayor W. Banks Wilkins, G. R. Wheeler, superintendent of city and county schools; K. R. Hoyle, city and county attorney; ex-State Senator T. S. Cross, W. H. Fitts, president Sanford Rotary Club; S. J. Husketh, president Sanford Kiwanis Club; Dr. George G. Chiles, president Sanford Lions Club; J. C. Pittman, president Sanford Business Association; A. K. Miller, secretary Merchants' Association; B. T. Baumgardner, superintendent of the mills, and M. W. Harris, cashier National Bank of Sanford.

SELF-SEALED



Designed with removable labyrinth felt seal entirely within confines of extra wide inner and outer rings to avoid injury, these "Greaseal" Precision Bearings, with large grease capacity, assure superior performance. Write for Catalog.

NORMA-HOFFMANN
PRECISION BEARINGS

NORMA-HOFFMANN BEARINGS CORP. STAMFORD CONN. U.S.A.

The Norlander Machine Company

213 W. Long Ave.

Gastonia, N. C.

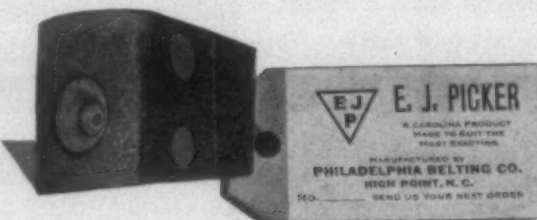
Are you having trouble with SLUFS in your roving?

Our Improved BURNISHING PROCESS on flyers will correct all sluf trouble for you.

We also specialize in spindle and steel roll repairs and manufacture new flyer pressers and spindles.

OUR MOTTO
QUALITY AND SERVICE
At Minimum Cost

Home Office—New Bedford, Mass.



Philadelphia Belting Company
HIGH POINT, N. C.

Labor Racket Involving Murder

(Reprint from Boston Post)

One of the most sensational labor rackets here in recent years, in which one clothing manufacturer was scheduled for death and more than a score of others were supposedly slugged by thugs employed by union officials, was on the point of breaking last night as headquarters detectives grilled an alleged slugger employed by the union.

Two well-known union officials may be arrested today by detectives who will present the evidence in the slugging and the conspiracy to murder before a judge in Municipal Court and ask that warrants be granted.

Hamaty surrendered at police headquarters late yesterday after he heard that police had the dragnet out for him on a tip that he was the man who had shot Louis Weiner, partner in the U. S. Sportwear, at 180 Harrison avenue, last Friday afternoon. Weiner was shot through both legs. Hamaty denied any knowledge of the shooting but will be taken to City Hospital today to see if Weiner can identify him.

Shortly after he arrived at police headquarters and was faced with the two affidavits that came in some mysterious way into the possession of police he broke down and began the exposure of the methods used on clothing manufacturers to force them to sign union agreements, police say.

Many of the things contained in the affidavits were denied by Hamaty, according to police. Deputy Superintendent James R. Clafin stated that Hamaty contended that the affidavits were given by him to Darrish more or less under duress.

Most sensational of the admissions alleged by police to have been made by Hamaty was that two union officials whom he named had taken him to the top of a Kneeland street building. There, he said, they pointed out a clothing manufacturer working in a window of a building across the street. They stated, according to the alleged story of Hamaty, that they wanted the man killed and would give Hamaty \$50 to buy a rifle to do the job. They promised \$500 payment for the murder.

Hamaty, according to his alleged story taken down by George Godfrey a police stenographer, was that he refused to accept the job and told the labor leaders that murder was not in his line. He said that in outlining the proposed murder to him that he was told to take the rifle after the killing and drop it in Boston harbor where it would never be found.

According to his alleged statement he accompanied the

men back to the offices of a labor union where they told him to say nothing to anyone about the planned murder, as they could get someone else to do the job. They are alleged by Hamaty to have stated that they would send for him when they had other work to do.

Textile Plant For Netherlands India

Washington.—Establishment of an experimental cotton textile plant in the Netherlands India is recommended in a report of the committee of Netherlands textile manufacturers following a study of the problem from all angles, according to a report to the Department of Commerce from J. H. Benners, the Hague.

It is recommended that the initial unit be a small plant which later may be expanded to a fully developed cotton textile industry comprising approximately 300,000 spindles and 10,000 looms with an additional finishing plant, it was stated.

The report states that an effort should be made to avoid the establishing of the mechanical cotton spinning in a location unsuitable for the affiliated works of bleaching, dyeing and printing.

Excess production capacity, according to the report, should be avoided. This can best be done, it was stated, through the establishment of the enterprise on a collective basis.

The necessary capital for this undertaking will be furnished by 30 Netherlands cotton textile manufacturers in co-operation with East Indian banks, importers and shipping companies, it was stated.

"Paint Over Rust"

A new folder from the Truscon Laboratories, Detroit, Mich., describes a method of "painting over rust" that will interest mill men. The action of Bar-Ox Formula "No. 97" is described by the manufacturers. It is recommended for painting directly over rust on steel. The formula is said to stop the development of rust under a paint film. In this new rust preventive treatment the inhibitive action of Bar-Ox "Formula No. 97" is said to penetrate through the rust structure itself, down to the bright metal itself, thereby stopping any further rust development.

Besides the product described above The Truscon Laboratories offer Bar-Ox steel paint in colors, acid resisting paints in black and gray, Wall-Lite interior paint, Stone-Tex waterproof concrete and brick paints in white and colors and a full line of house paints, interior and exterior.

Holt Gets Patent

S. S. Holt of Graham has secured a patent on a method and apparatus for reclaiming strippings in cotton and other fibers. Heretofore, the strippings have been sold as waste, while others have endeavored to save this loss by placing the strippings with all impurities therein back into the new cotton before it is passed through the pickers. This has resulted in placing a lot of motes and other foreign matter in the new stock. Mr. Holt equips a few cards in a mill with suction nozzles to remove the cotton in loose form. He collects the strippings from the other cards and passes them through the pickers and forms lap rolls of the same and then places these lap rolls of strippings in the special cards and removes the fibers by the nozzle and mixes the recarded strippings with the new stock as it is fed to the pickers. This method is said to save practically all of the fibers in the strippings.

SOLUOL CORPORATION

123 GEORGIA AVE.

PROVIDENCE, R. I.

.. OILS .. WAXES .. SIZINGS ..**.. SPECIAL FINISHES ..****.. FOR THE TEXTILE TRADES ..**

Specializing

in

MATERIALS AND PROCESSES

for

SILK, RAYON, AND FINE COTTONS

*Southern Representative,***EUGENE J. ADAMS**

TERRACE APTS.

ANDERSON, S. C.

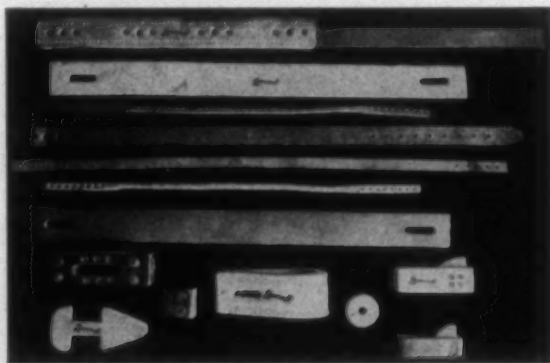


Illustration Shows a Few of the Different Straps Manufactured By Us

All of our textile leathers are manufactured from Oak Tan and Hairon Leather. Our Oak Tan Strapping is made from packer hides, selected for substance, weight and fibre strength. Our Hairon Leather is made from foreign hides that are selected for textile purposes and is especially adapted for this work, owing to the extra length of the fibres.

We are thoroughly familiar with all textile leathers pertaining to cotton, woolen, worsted, silk and rayon looms.

Bancroft Belting Co.

145 High St.

Boston, Mass.

Southern Agent

Ernest F. Culbreath

Ninety Six, S. C.

**AN
ENGINEERING ACHIEVEMENT**
In Low Cost **FLOORS**
for COMPANY HOUSING!

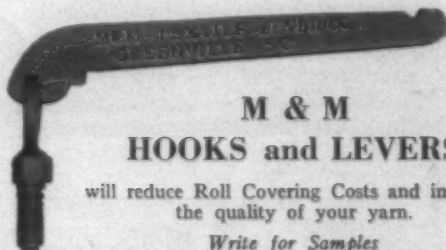
Designed by textile engineers... developed through
30 years of constant improvement in processing...

Specify
LOCKHART BRAND
IN
COTTAGE and BUNGALOW
GRADES
End-Matched
Lays Without Waste

For new construction or replacement...
they are good for the life of the building

For Quotations, Ask Your
Lumber Dealer, or Address

JACKSON LUMBER CO.
Flooring Specialists for Over 30 Years
LOCKHART, ALABAMA



**M & M
HOOKS and LEVERS**

will reduce Roll Covering Costs and improve
the quality of your yarn.

Write for Samples

M & M TEXTILE LEVER CO.

P. O. Box 1572

Greenville, S. C.

CARECO ONE PIECE FURNACE LINING

A PLASTIC LINING USED
IN PLACE OF FIRE BRICK

ADAPTABLE TO ALL TYPES
OF BOILER FURNACES



Reg. U.S. TRADE MARK Pat. Off.

Boiler furnaces lined with CARECO last 2 to 4 times
longer than those lined with fire brick. Write for quo-
tation—use CARECO to repair or line the furnaces.

CAROLINA REFRACTORIES COMPANY
HARTSVILLE, S. C.

Memorial To Lafayette Lanier II

(Continued from Page 16)

LAFAYETTE LANIER II

Lafayette Lanier II, second son of the late Lafayette Lanier and Ada Huguley Lanier, died at the Langdale Hospital in Langdale, Ala., September 16, 1930, aged 48 years.

The greater part of his active life was spent in West Point, Ga., and Langdale, Ala. A graduate of the West Point public schools, he later studied in Philadelphia Tech and Columbia University, New York.

He had always been closely connected with the development of the manufacturing industries in and around West Point. He entered the services of the West Point Manufacturing Company after finishing school and was superintendent of the Riverdale Mill and in 1907 became superintendent of Langdale Mill and soon afterwards became agent of all the plants of the West Point Manufacturing Company.

He made an intensive study of the textile industry under his father, who was familiar with every phase of cotton manufacturing.

Deeply interested in the welfare of the people of the valley, he was always their friend and helper. Truly none knew him but to love him. His greatest joy seemed to be in the improvement of living and working conditions of the people and he gave them his constant attention.

At the time of his death he was agent for the West Point Manufacturing Company, president of Wehadkee Yarn Mills, director of the Citizens Bank & Trust Co. and was interested in other local enterprises.

He was member of the First Christian Church of West Point and a deacon of that church; a member and past president of the West Point Rotary Club and Ivanhoe Lodge Knights of Pythias; a Mason and a Shriner.

He was a member of Chambers County Board of Education, an office to which he had been elected without opposition for several terms and to which he had devoted himself as one deeply interested in educational matters.

"To be strong and true; to be generous in praise and appreciation of others; to impute worthy motives; to give without expectation of return; to practice humility and self restraint; to make the best use of time and opportunity; to keep the mind pure and judgment charitable; to extend intelligent sympathy to those in distress; to cultivate quietness and gentility; to seek truth and righteousness; to work, play and serve daily; to labor cheerfully and to take God at His word, are the qualities of a worthy citizen."

Such qualities had Lafayette Lanier II, and there never lived a more useful nor a finer citizen.

Knitters Develop Rayon Novelties

The novel fabrics and rich tones of the fall knitwear styles have called heavily upon du Pont rayon yarn, according to Dorothy Pentz, writing in the current number of the du Pont Magazine.

By far the greatest number of rayon yarns used by the professional knitting specialist are not mixed with others. Rayon is so adaptable, lends itself so readily to the exacting purposes of the yarn stylist, that almost any desired effect can be obtained. The yarn may be dull, semi-dull, bright, or a mixture of all three; it may be thick or thin, smooth or rough, soft or harsh. The array of effects in this way is almost unlimited.

NOVELTY YARN TWISTS

To achieve the unusual, rayon is sometimes blended or

twisted with other substances. "Cellophane" slit cellulose film is much used as a blend, rayon straw occasionally, and wool, silk and mohair are ideal for this purpose. Spun rayon, which is the yarn in very short lengths, may be used alone or in combination with other fibers.

Ratine yarns made of du Pont rayon are combined and metallized slit cellulose film made of "cellophane." The effect is more or less that of a twisted metal thread, but one that will not tarnish or scratch as metal sometimes does. Using this combination yarn, one designer has developed a complete line of blouses and afternoon and evening dresses, called the Scintillas. This creator was the first this season to sponsor those glamorous knit evening gowns which were shown in Paris at the mid-season openings.

Among the newer knit fabrics made of rayon yarns, alone and blended with others, are several that are decidedly novel and that possess qualities that are sure to make them popular. These are, for instance, mixture tweeds with nubbed surfaces, some of them in handsome suitings that resemble woven fabrics. They are light in weight, comfortable and correct for early fall and later for dresses to wear under coats. The color combinations are excellent for fall—yellows and greens with black, purples with red, rust and blues with mustard.

Jacquard effects are developed in ratine yarns either through novelty stitches or color designs, with crossbars, flecks, dots, checks and stripes the most popular. Companion fabrics of plain knits for blouses and jackets, and figured ones for skirts look very smart. A beautiful rich effect can be had with some du Pont rayon yarns that tend toward a mossy texture in the finished fabric.

NEW HEATHER MIXTURES

Another type of fabric unquestionably slated for success is a new two-tone heather mixture made of du Pont rayon fancy twisted yarns. It is ideal for town and country clothes since it has plenty of body, can be sharply tailored and drapes to perfection.

There is also a definite demand for certain fabrics with a hairy appearance, which is of course due to the spun-rayon yarn content.

Checks and plaids are in abundance—notably a new development in a jersey cloth made with fancy twisted yarns and suitable for afternoon and evening dresses. Jerseys promise a big comeback, but to win a place in the higher-price ranges they must be distinctive.

Napped fabrics of rayon are to be played up strongly in the popular price lines. One called Camel Suede resembles a novelty velvet and promises to be a volume item for dresses. Napped knit fabrics are likewise to be found in some attractive negligees.

NON-CRUSHABLE VELVET

A velvet knit made of du Pont rayon is guaranteed non-crushable and washable. It is seen in nightgowns and pajamas. There are indications that it will be shown later in jackets and dresses. Some versions of the knit velvet feature stripes of varying widths.

It was natural for this broader range of knitted fabrics to lead to a wider adoption in apparel of all kinds. Knits are found in dresses of nearly all types—evening and afternoon, two and three-piece—as well as in suits, sweaters, coats, bathrobes, pajamas, nightgowns, jackets and blouses in various styles.

The novelty yarns and fabrics displayed in current showings are claimed to be largely responsible for the better apparel business. Color, too, plays a big part in the fall fashion picture. The shades are rich. Some preference is shown for Parma violet and deep violet, and likewise for reds in wine and rust tones. There are many shades of green, from yellow to blue, and a number of orangy and tawny browns.



CUT POWER COSTS—SAVE TIME WITH NEW VULC-ON RUBBER TIRED WHEELS

GET THIS

Free BOOKLET

Big news for every user of industrial trucks! New type one-piece rubber tired wheels to fit practically any hand truck or industrial trailer. You can save as much as one-half on floor repairs with these new wheels. Reduce power costs. Increase handling speeds.

The rubber tires are actually vulcanized to the steel! Wheels are equipped with anti-friction bearings, standard lubrication fittings. Changeover from steel wheels is simple. The cost is surprisingly low.

And the service of a Factory Expert in analyzing your requirements for Rubber Tired Wheels. Write the B. F. Goodrich Co., Charlotte, N. C.

Goodrich Industrial Tires

Sterling Ring Travelers

SPINNING
and TWISTER
TRAVELERS
for every requirement

CENTER BEARING
Twister Travelers
(Patented)
for better work

Southern Representative
George W. Walker
P. O. Box 78
Greenville, S. C.

STERLING RING TRAVELER CO. FALL RIVER, MASS.

BELTS REPAIRED

We will loan you a belt,
without charge, while
your old belt is being
repaired

**GREENVILLE
BELTING CO.**
Greenville, S. C.

WANTED To Purchase

Either a No. 30 or No. 101 Foster Winder equipped for winding on Franklin Springs. Must be in good condition and priced right. Address "Box 25," care Textile Bulletin.

WANTED

A job and not a position as overseer or second hand in spinning, warping, winding, spooling or twisting. Age 34; twenty years experience; 7 years on present job, but it is closing down. Can furnish references from some good mill men; can go anywhere except Italy or Ethiopia. I don't want sympathy, but I do want a job. What have you to offer? "E. J. P.," care Textile Bulletin.

Paul B. Eaton PATENT LAWYER

1408 Johnston Bldg., Charlotte, N. C.
514 Munsey Bldg., Washington, D. C.
Former Member Examining Corps
U. S. Patent Office

Double Loop Hook Bands For Cards, Spoolers, Twisters and Spinning

Southern Textile Banding Mill
P. O. Box 974 Charlotte, N. C.

Judge Hayes To Give Decision on Process Tax

Greensboro, N. C.—Judge Johnson J. Hayes, after hearing attorneys for the plaintiffs, numbering about 60, and four attorneys representing the Government, in its renewed motion asking dismissal of the some 160 actions brought to test the constitutionality of the AAA and to restrain the collection of Federal processing taxes pending final determination of the suits, announced that he would take the matter under advisement, and would make an announcement in about a week or ten days when he

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

Page	Page
—A—	Johnson, Chas. B. —K—
Abbott Machine Co. —	Keever Starch Co. —L—
Akron Belting Co. —	Lane, W. T. & Bros. —
Allis-Chalmers Mfg. Co. —	Law, A. M. & Co. —
American Cyanamid & Chemical Corp. —	Link-Belt Co. —
American Moistening Co. —	Loper, Ralph E. Co. —M—
Armstrong Cork Products Co. —	Manhattan Rubber Mfg. Div. of Ray- bestos Manhattan, Inc. The — 36
Arnold, Hoffman & Co., Inc. —	M. & M. Textile Lever Co. — 24
Ashworth Bros. —	Murray Laboratory —N—
Atlanta Harness & Reed Mfg. Co. —	National Oil Products Co. —
—B—	National Ring Traveler Co. — 29
Bahnsen Co. —	Nelsler Mills Co., Inc. — 28
Baily, Joshua L. & Co. — 28	Neumann, R. & Co. —
Bancroft Belting Co. — 23	N. Y. & N. J. Lubricant Co. —
Barber-Colman Co. —	Norlander Machine Co. — 22
Borne, Scrymser Co. —	Norma-Hoffmann Bearings Corp. — 22
Brookmire, Inc. —	—O—
Brown, David Co. —	Onyx Oil & Chemical Co. —P—
Brown, D. P. & Co. —	Parks-Cramer Co. —
Butterworth, H. W. & Sons Co. —	Perkins, B. F. & Son, Inc. —
—C—	Philadelphia Belting Co. — 22
Campbell, John & Co. —	Preston, Gustavo Co. —R—
Carolina Refractories Co. — 24	Reeves Pulley Co. — 15
Charlotte Chemical Laboratories, Inc. —	Rhoads, J. E. & Sons —
Charlotte Leather Belting Co. —	Rice Dobby Chain Co. — 35
Ciba Co., Inc. —	Rohm & Haas Co., Inc. —
Clark Publishing Co. — 35	Roy, B. S. & Son —S—
Clinton Co. —	Saco-Lowell Shops —
Commercial Credit Co. —	Schieren, Chas. A. Co. —
Commercial Factors Corp. —	Seydel Chemical Co. — 29
Corn Products Refining Co. —	Seydel-Woolley Co. — 35
Crompton & Knowles Loom Works —	Signode Steel Strapping Co. —
Curran & Barry — 28	Sipp-Eastwood Corp. —
—D—	Socony Vacuum Oil Co. —
Dary Ring Traveler Co. — 28	Soluol Corp. — 23
Daughtry Sheet Metal Co. —	Sonoco Products —
Deering, Milliken & Co., Inc. — 28	Southern Ry. —
Dillard Paper Co. — 29	Southern Spindle & Flyer Co. —
Dixon Lubricating Saddle Co. —	Southern Textile Banding Co. — 26
Drake Corp. —	Sperry, D. R. Co. —
Draper Corporation — 1	Staley Sales Corp. —
Dronfield Bros. —	Stanley Works — 20
Dunkel & Co., Paul R. —	Steel Heddle Mfg. Co. —
Dunning & Boschert Press Co. — 29	Stein, Hall & Co. —
DuPont de Nemours, E. I. & Co. —	Sterling Ring Traveler Co. — 25
—E—	Stevens, J. P. & Co., Inc. — 28
Eaton, Paul B. — 26	Stewart Iron Works Co. —
Edison Hotel —	Stone, Chas. H., Inc. —
Emmons Loom Harness Co. —	Stonhard Co. —T—
Engineering Sales Co. —	Terrell Machine Co. — 21
Enka, American —	Texas Co., The —
—F—	Textile Banking Co. —
Foster Machine Co. —	Textile Shop, The —
Benjamin Franklin Hotel —	Truscon Laboratories, The —U—
Franklin Process Co. —	U. S. Gutta Percha Paint Co. —
—G—	U. S. Ring Traveler Co. —
Garland Mfg. Co. —	Universal Winding Co. —V—
General Dyestuff Corp. —	Vanderbilt Hotel —
General Electric Co. — 12	Veeder-Root, Inc. —
General Electric Vapor Lamp Co. —	Victor Ring Traveler Co. —
Georgia Webbing & Tape Co. —	Viscose Co. —
Goodrich, B. F. & Co. — 25	Vogel, Joseph A. Co. —W—
Goodyear Tire & Rubber Co. —	WAK, Inc. —
Grasselli Chemical Co., The —	Washburn Printing Co. —
Graton & Knight Co. —	Wellington, Sears Co. —
Greensboro Loom Reed Co. —	Whitin Machine Works —
Greenville Belting Co. — 26	Whitinsville Spinning Ring Co. — 35
Grinnell Co. —	Williams, I. B. & Sons — 4
—H—	Wolf, Jacques & Co. —
H & B American Machine Co. —	
Hercules Powder Co. —	
Hermas Machine Co. —	
Houghton, E. F. & Co. —	
Houghton Wool Co. —	
Howard Bros. Mfg. Co. —	
—I—	
Industrial Rayon Corp. —	
—J—	
Jackson Lumber Co. — 24	
Jacobs, E. H. Mfg. Co., Inc. —	

arrives at a decision on the matter, and also state at that time the date for the counsel for the plaintiffs and the Government to meet to hear his decision handed down.

Sees Cotton Industry All in the South

Greensboro, N. C.—Julius W. Cone, president of the Cone Export & Commission Co., in a talk before the meeting of the Southeastern Advisory Board's committee at the King

Cotton Hotel here, on the textile progress in North Carolina and the South, and in stressing the growth of the Southern end of it, forecast that within a limited number of years the entire cotton industry will be located in the South.

He presented figures showing that a number of years ago approximately three-fourths of the textile industries were located in the New England States, but that at present about 90 per cent of the industries are located in the Southern States.

Classified Department

Need Help?

Find your man through a
Bulletin Want Ad
This Size Space \$3.00 per
insertion

MURRAY LABORATORY

Chemist and Bacteriologist
Analytical and Consulting.
Sanitary, industrial and boiler water
analyses, sizing compounds, oils and
general analyses.
17 years experience
21 W. McBee Ave. Greenville, S. C.

BULLETIN WANT ADS

Produce
RESULTS

At
LOW COST

This Size Space \$6.00

Hosiery Standards Ready

The National Association of Hosiery Manufacturers is proceeding to bring to a close its efforts to establish standards of construction and inspection for ladies' full-fashioned hosiery. Following the special conference on the proposed standards held in Philadelphia in April, at which a very pronounced majority registered themselves as in favor of these standards as finally amended, action on them was allowed to rest for two reasons. First, the unexpected termination of codes at the end of May which occupied the attention of officers and committees in other directions, and second, it was felt that the subject should not be resumed until the summer months and vacations were over and executives had returned generally to their tasks.

"The standards in final form have been generally recognized by both the manufacturer and the customers of the industry as simple, sound and practical," the association states.

"Their general adoption by the industry will be another forward step in the direction of stabilizing the values of our product. It is a healthy thing for an industry to initiate and carry out such efforts itself, thus avoiding outside pressures which, while well intentioned, are usually impractical and result only in embarrassment and misunderstanding.

"It is very gratifying to know that the correspondence of the association during recent months has shown a general appreciation on the part of the responsible type of manufacturer, both large and small, of the benefits which came to this industry by virtue of that code provision which provided

for the marking of irregulars, seconds and thirds of hosiery as such. In spite of occasional rumors and pressures to the contrary, usually coming from none too scrupulous buyers, the mentioned provision of our recent code continues generally in effect by voluntary action of our manufacturers.

"The standardization work referred to when adopted and put into effect by the industry, will doubtless contribute toward maintaining the marking provisions in force. Such a result will be to the interest of all goods manufacturers, and of course, will be of equal interest to the better type of buyers and to consumers generally."

Cotton for Decorations

Cottons for home decorative fabrics reach new fashion heights this fall as evidenced by the unanimity with which leading retailers are featuring them in their new home furnishings and upholstery promotions, according to Miss Catherine Cleveland, consumer consultant of the Cotton-Textile Institute.

Novelty cottons, says Miss Cleveland, are this year outstanding in weave, color and design, and particularly adapted for decorative home furnishing use.

Many unusual combinations of slub and plain yarns offer striking effects in horizontal and diagonal stripes and large checks. Plain and printed velveteens, the latter including fine checks, pin dots and stripes, hound's tooth and geometric patterns, are prominent everywhere.

Several new cloths have appeared on the market. Casa Homespun is a waffle weave in an interesting combination of colors giving a horizontal stripe effect. Made of vat colored yarns, it is as inexpensive as it is

attractive. The same shop shows a diagonal chenille novelty in several colors which is particularly fitted for chair coverings. A ratine novelty is developed in lattice design in beige, brown, blue, green and chartreuse, with burgundy and rose to follow soon.

Devonshire is a new casement cloth of mercerized, sanforized cotton. A cotton damask with diagonal leaf motif stripe and several floral chintzes at the same store give an idea of what will be forthcoming during the fall season in the way of attractive and unusual cottons.

One Fifth Avenue store claims that cotton upholstery fabrics are superseding all other fabrics for chair coverings.

The extensive use to which they are put in the new model rooms is ample evidence of the fact that cottons have been accepted as a definite factor in future home decoration.

An Eighteenth Century living room uses a Chinese red novelty cotton and a Chinese blue for two of its chairs. The couch, upholstered in a cotton damask of Chinese red with a fine broken stripe of Chinese blue, ties in the whole harmoniously.

A modern apartment utilizes a rust colored cotton ratine as an upholstery material. The same fabric in a blue green is used for the couch and occasional chairs. Draperies are of ratine in rust and natural horizontal stripes.

New Publication

"Norma-Hoffmann Precision Needle Roller Bearings" is the title of a new bulletin just issued by Norma-Hoffmann Bearings Corporation, Stamford, Conn., and describing the latest addition to this manufacturer's line of Precision Bearings. This type of bearing—employing a large number of long rollers of small diameter—has found increasing favor in recent years for purposes where considerations of space forbid the use of the conventional type of anti-friction bearing. They commend themselves particularly to conditions where minimum outside dimensions, minimum weight, concentrated load capacity and inherently high quality are requisites. Typical applications are: connecting rod bearings (wrist pin end); cam rollers, rocker arms, pump shafts, idler gears, planetary reduction gears; aircraft engines; printing machinery; miscellaneous machine purposes. Norma-Hoffmann Precision Needle Bearings, in metric sizes from 12 to 150 m/m bore, are adapted to a wide range of loads and speeds.

SELLING AGENTS *for* SOUTHERN COTTON GOODS

Deering, Milliken & Co.

Incorporated

79-83 Leonard Street

New York

99 Chauncey St., Boston 223 Jackson Blvd., Chicago

NEISLER MILLS Co., Inc.

Selling Agents

66-68 Worth St.

New York

CURRAN & BARRY

320 Broadway

New York, N. Y.

DOMESTIC

EXPORT

MERCHANDISING

JOSHUA L. BAILY & Co.

10-12 THOMAS ST. NEW YORK

Cotton Goods Markets

New York.—The cotton goods markets were fairly active during the week. It was estimated that sales of print cloths were just about equal to production. Sales of sheetings showed a material gain and business for the week was well above output. Sheetting business included some large future contracts covering a variety of constructions. There were fairly good sales of carded broadcloths and drill, sateens and osnaburgs moved well.

Reports as to wholesale and retail sales of finished dry goods items continued very encouraging. Prospects are for continued moderate sales of gray goods over the next few months, and there is a strong likelihood that there will be occasional bursts of activity which will carry sales ahead of production. Over the next two months, however, it is probable that sales will exceed production by not more than 50 per cent on the average. This itself will be sufficient to keep the price structure strong, and probably will bring further advances in print cloths. Sheetings are widely considered to be ready for advances.

In the fine goods markets prices firmed up somewhat as the last of the second-hand offerings at discounts under first hand quotations were taken up. There were still some second-hand lawns around but these were quoted even with the first hand goods, and few, if any, were sold on this basis. Mills generally were well sold ahead and were under no pressure to push out goods at concessions.

On combed broadcloths it was reported that while 12½ cents was generally quoted on both the 128x68s and 136x60s, this had been shaded in one or two instances where goods which were said to be less than generally acceptable quality were involved.

There were additional good sales of fancy cloths in both the rough and the sheer weaves. While some re-orders have come through, most converters have been concentrating their attention on building up sample lines and are not ready to work on repeats.

The market for rayon cloths has not yet shown any marked improvement.

Print cloths, 27-in., 64x60s	5
Print cloths, 28-in., 64x60s	5½
Gray goods, 38½-in., 64x60s	6¼
Gray goods, 39-in., 80x80s	8½
Gray goods, 39-in., 68x72s	7½
Brown sheetings, 3-yard	9¼
Brown sheetings, standard	9¾
Tickings, 8-ounce	19
Denims	15
Brown sheetings, 4-yard, 56x60s	7¾
Dress gingham	17¼
Staple gingham	10

DARY TRAVELERS

If it's a DARY Ring Traveler, you can depend on it that the high quality is guaranteed—that the weight and circle is always correct, and that all are uniformly tempered which insures even running, spinning or twisting.

Ask for Prices

DARY RING TRAVELER COMPANY

311 Somerset Ave. Fred H. Dary, Mgr. Taunton, Mass.
Sou. Agents

JOHN E. HUMPHRIES
P. O. Box 343
Greenville, S. C.

CHAS. L. ASHLEY
P. O. Box 720
Atlanta, Ga.

J. P. STEVENS & CO., Inc

Selling Agents

40-46 LEONARD ST., NEW YORK

Cotton Yarn Markets

Philadelphia, Pa.—There was very little change in the yarn market last week. There were many sales of small to moderate lots, but large sales for future delivery were exceptional. Consumers showed more interest in future requirements, inquiry being active. However, few buyers were willing to put down large orders. Prompt and spot deliveries were wanted in most instances. The tendency to want quick shipments has been steadily cutting down stocks and is slowing up deliveries in some instances where mills are running only part time.

The trade here seems to think that the market is slowly improving and that much larger business should develop within a short time.

Buyers wanting certain makes have no alternative except to order in advance of their manufacturing needs, otherwise they risk getting yarn shipments late. This condition is not prevalent enough to represent a shortage of supplies, but it has a bearing on special makes and qualities.

Spinners continue to hold down production. It is apparent that they believe stocks should be kept low pending a final settlement of the processing tax matter. Most buyers, for the same reason, prefer to buy on a conservative basis. It is likely, however, that they will have to cover more freely due to the fact that it is becoming more difficult to secure the deliveries they want.

Spinners still complain of the low price situation, although quotations have shown some improvement in the past several weeks. Some of the larger mills are taking very little business now. They are not willing to accept present prices.

It is believed here that the market will continue to make progress due to the fact that at present, it is subject to fewer outside influences than has been the case in some time. Yarn men feel that the improvement that has developed in recent weeks is due to the normal development of supply and demand and that the influence of action in Washington has materially declined. In this connection it is noted that a number of spinners who have been refusing to accept orders on account of low prices have begun to book more business at prices they have been holding for.

Southern Single Skeins		26s	
8s	27	33 1/2	
10s	27 1/2	35	
12s	27 1/2	40s	41
14s	28	40s ex.	42
16s	28 1/2	50s	50
20s	30	Duck Yarns, 3, 4 and 5-Ply	
26s	32 1/2	8s	27
30s	34	10s	27 1/2
36s	35	12s	28
40s	40	16s	29
		20s	30
Southern Single Warps		Carpet Yarns	
10s	27	Tinged carpets, 8s, 3	
12s	27 1/2	and 4-ply	
14s	28	Colored strips, 8s, 3	
16s	28 1/2	and 4-ply	
20s	30	White carpets, 8s, 3	
26s	32 1/2	and 4-ply	
30s	34	Part Waste Insulating Yarns	
36s	35	8s, 1-ply	
40s	40	8s, 2, 3 and 4-ply	
Southern Two-Ply Chain Warps		10s, 2, 3 and 4-ply	
8s	27	12s, 2-ply	
10s	27 1/2	16s, 2-ply	
12s	28	20s, 2-ply	
14s	28 1/2	Southern Frame Cones	
16s	29	8s	
20s	30 1/2-31	10s	
24s	32 1/2	12s	
26s	32 1/2	14s	
30s	35	16s	
36s	39	18s	
40s	41	20s	
Southern Two-Ply Skeins		22s	
8s	27	24s	
10s	27 1/2	26s	
12s	28	28s	
14s	28 1/2	30s	
16s	29	40s	
20s	30 1/2		
24s	32 1/2		

WENTWORTH

Double Duty Travelers

Last Longer, Make Stronger Yarn, Run Clear, Preserves the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE.

Manufactured only by the

National Ring Traveler Co.
Providence, R. I.

31 W. First Street, Charlotte, N. C.



Reg. U. S. P. O.

IF IT'S PAPER Send Us Your Order

Cloth Winding Boards
Jacquard Board—Beaming Paper
Toilet Tissues
Twines—Wrapping Paper—Boxes, etc.

DILLARD PAPER CO.

GREENSBORO, N. C. GREENVILLE, S. C.



BALING PRESS

Motor Drive, Silent Chain, Center of Screw.

Push Button Control — Reversing Switch with limit stops up and down.

Self contained. Set anywhere you can run a wire.

Our Catalogue sent on request will tell you more about them.

Dunning & Boschert Press Co., Inc.

328 West Water St., Syracuse, N. Y.



The House of Service

To North and South
Established 1904

Seydel Chemical Co.

Jersey City, N. J.

Greenville, S. C.

Harold P. Goller

Lowell, Mass.

Francis B. Boyer

Master Mechanics' Meeting At Gastonia

(Continued from Page 9)

the short center I have ever run so far. Of course, I am going to continue to keep a record on the flat and V-belts, too. I think both of them have their place. We have placed down there where we could not run a short center flat belt drive with a Rockwood. We have other places that I think the other belt is more in place than the V-melt. We make some of our own sheaves. We are getting much better results from the ones that we make than from the ones that we buy.

I think that we all can make some improvements; I think that we have plenty of territory to work on. But, personally, I prefer where it is feasible, the short flat center, because I don't have any experience in bearing troubles on my motors and you have the same tension on that belt all the time, because that motor gives you that tension. I don't know whether that would work on V-belt drives or not. I never have put it on one, that is one question that I would like to ask this morning, if anybody knows what the difference of friction in a V-belt when you leave the pulley from a flat belt. Has anyone had that experience? You know, there is an interlocking there that takes place in the sheave. It locks in there, and I would like to know if anybody has gone to the trouble to make that test to find out if there is much difference, the difference in frictions there leaving the pulley, and in the flat belt.

Mr. Kincaid: Mr. Chairman, we did not make a test to find that out about the friction, but incidentally we did, that is, the load. After our test there wasn't any noticeable difference on the small drive. Of course, it might have been on a heavier, 10 or 30 horsepower, something like that, there might have been a noticeable difference in the current consumed, but it wasn't on a half-horse drive.

Mr. Tindall: Mr. Chairman, we have a half-horsepower, and it has given good service on the flat belt.

NO ONE BEST DRIVE

Mr. Fox: Now, we have just got to get down and dig these things out, that is what counts. But I am going to prevail upon us, sir, to allow me to go back to the first question, and that is the value of these things. Oh, I reckon it is different here and our engineers are still of the Scotch variety. But, there is no best drive up to the present time. I am watching V-belts and Rockwood belts and everything else. I say there is no best known at this time, but why do we change, why did you change, Brother Young. Those group drives into individual drives? That is the question. Why? Because it was the best. What was the standard of the best? Let the old man and I bring it back once more, the reason they were running cotton mills was for money, that is all. It isn't to demonstrate drives, it isn't to demonstrate some particular group, we are running the mills to make money. Therefore, the answer is, why does it make the most money for a given investment?

Now, some of your engineers will tell you that by adopting a group drive you save power, you save maintenance, but how about production? You know the boss raises the dickens about not having production in the room this week! The real question after all is what will produce the most at a given cost? Settle that question, and you are going to settle which is the best drive, and that is a very difficult question to settle.

You will find some engineers that favor the Rockwood drive, but you remember this power council down in Greenville that had this wonderful layout of pulleys and belts and drives down there at the Greenville show to

demonstrate which is the best drive. The point I want to bring out is, that that is not the final question.

Chairman: Possibly Mr. Fox misunderstood me. I am not up here trying to sell Rockwood drives this morning. (Laughter.) I am not selling any product and I am not selling power, either. (More laughter.) But, gentlemen, I was just giving you the facts of what I thought was the best way to increase production. That was the point I was driving at.

And I am glad to say this morning, that I want to do the very best for the cotton mill industry that it is possible for me to do. I have always had that in me and I am going to continue. I have had 36 years in cotton mill business and that has always been my ambition, to make myself better, bigger, and where I could, help somebody else. And I don't want any of you to get the idea that I am up here in that light, because I am not. I only want to put over that which will be to the best interest to everybody, and I want you to get the best you can out of this meeting, as to anything that pertains to your job. That is the reason I mentioned the Rockwood drive. I thought maybe it would help you in some of your problems that you wanted to get at. I hope that no one misunderstood me.

Mr. Spencer: I would like to have Mr. Lake explain the relation between motor feed and frequency of current applied to the motor. Also, what relation, if any, does lower or raised frequency compare to motor efficiency and current cost? Does it affect motor feed in accordance thereof?

Mr. Lake, Duke Power Co.: I suppose you mean squirrel cage motors? Well, the first question of frequency, there are two factors that affect the speed of a squirrel cage motor, and they depend on the motor frequency. With a constant load on the motor or practically constant load on the motor, in the frequency, your speed variation will be directly proportionate to the frequency variation. If your frequency goes up five per cent your speed will be in proportion thereto. Now, as to the voltage, voltage does have its effect on the speed of squirrel cage motors; however, the speed is not nearly so sensitive to voltage as it is to frequency. But generally speaking, an increase in speed, while your load goes up in the same proportion and the energy goes up in the same proportion. If you drop your speed, your energy and load is going to drop in proportion to the speed. That depends finally upon the type of the load. It would be different in the straight frame than from the spinning frame.

Chairman: How many variations will there be in the speed of a production motor, the frequency, when it is 60 and you drop it down to 59? How many revolutions does it cut that motor?

Mr. Lake: Well, it depends on what is the rated speed of that motor. That is, it is a percentage proposition all the way through.

Among Those Present

Abernethy, A. P., Master Mechanic, Alexander Mfg. Co., Forest City, N. C.; Abernethy, Y. M., Asst. Foreman and Electrician, Cliffside Mills, Cliffside, N. C.; Ashmore, W. G., Sou. Ed., *Textile World*, Greenville, S. C.

Berg, S. D., Sales Mgr., Fafnir Bearing Co., Charlotte, N. C.; Black, G. P. W., Salesman, General Coal Co., Greenville, S. C.; Bryant, Chas. K., Pres., Bryant Electric Co., Gastonia, N. C.; Burris, L. F., Master Mechanic, Oakboro Cotton Mills, Oakboro, N. C.

Campbell, P. L., Shop Foreman, Union Bleachery, Greenville, S. C.; Case, Herbert C., Mechanic, A. M.

Smyre Mfg. Co., Gastonia, N. C.; Cathey, W. E., Master Mechanic, Victory-Winget Mills, Gastonia, N. C.; Chapman, E. H., Engineer, General Coal Co., Charlotte, N. C.; Cook, J. H., Master Mechanic, Erwin Cotton Mills, Cooleemee, N. C.; Costner, G. W., Mechanic, Seminole Mill, Gastonia, N. C.

Davis, A. D., Manufacturer, Knitting Tubing, Gastonia, N. C.; Davis, C. G., Master Mechanic, Myrtle Mills, Gastonia, N. C.; Dilling, Marshall, Sec. and Supt., A. M. Smyre Mfg. Co., Gastonia, N. C.

Edmiston, E. E., Master Mechanic, Mooresville Mills, Mooresville, N. C.; Elliner, R. R., Second Hand, Print Mills, Taylors, S. C.

Faulkenbury, C. R., Master Mechanic, Melville and Glenn Mills, Lincolnton, N. C.; French, D. A., Salesman, Gastonia Mills, Gastonia, N. C.; Fox, John W., Engineer, Duke Power Co., Charlotte, N. C.; Fox, John E., Detex Watchman's Clock, Charlotte, N. C.

C.

Gilmer, E. D., Sou. Bleachery, Greenville, S. C.; Glenn, W. H., Supt., Whitney Mfg. Co., Whitney, S. C.

Haslup, Charles, Spec. Rep., Fairbanks Co., New York; Henson, Mechanic, Sou. Bleachery, Taylors, S. C.; Henson, W. G., Mechanic, Firestone Mills, Gastonia, N. C.; Herring, S. T., Mechanic, Orr Cotton Mill, Anderson, S. C.; Hewitt, J. C., Mechanic, Whitney Mills, Whitney, S. C.; Howarth, H. W., Mechanic, Lanett Mill, West Point, Ga.; Hutchinson, S. P., Asst. Sales Mgr., General Coal Co., Charlotte, N. C.

Iler, J. G., Mfg. Agent, Charlotte, N. C.

Johnson, H. S., Power Plant, Mooresville Mills, Mooresville, N. C.; Jubin, M. A., Mechanic, Pacolet Mfg. Co., Pacolet Mills, S. C.

Kincaid, L. M., Mechanic, Nat. Weaving Co., Lowell, N. C.

Lake, Marshall, Engineer, Duke Power Co., Charlotte, N. C.; Lasater, J. M., Mechanic, Smyre Mills, Gastonia, N. C.; Lewis, Paul A., Salesman, Gastonia Mills, Gastonia, N. C.; Lineberger, S. K., Mechanic, Industrial Mills, Rock Hill, S. C.; Lindsey, V. B., Mechanic, Jackson Mills, High Shoals, N. C.; Likens, H. L., Rep., Bryant Elec. Co., Gastonia, N. C.; Lipe, E. F., Mechanic, Lincolnton, N. C.; Littlefield, J. W., Engineer, Swan-Finch, Greenville, S. C.; Lowe, F. W., Mechanic, Ruby Mills, Gastonia, N. C.

Mahon, Paul B., Bryant Elec. Co., Gastonia, N. C.; Maines, J., National Tool Co., Gastonia, N. C.; Mason, C. Q., Mgr., Greenville Textile, Greenville, S. C.; Merl, Milton F., Asso. Ed., *Southern Power Journal*, Atlanta, Ga.; Messick, G. G., Mechanic, Excell Mach. Co.; Misenheimer, L. S., Mechanic, Piedmont Print Works, Taylors, S. C.; Misenheimer, L. W., Master Mechanic, Sou. Bleachery, Taylors, S. C.; Misenheimer, A. F., Mechanic, Carolina Dye Co., Mt. Holly, N. C.; Morrison, A. C., Supt. Meter Dept., Duke Power Co., Charlotte, N. C.

Nesbitt, Wilson, Mechanic, Myrtle Mills, Gastonia, N. C.; Norris, J. M., Mechanic, Ranlo Mfg. Co., Gastonia, N. C.

Oates, John B., Owner, Acme Products, Charlotte, N. C.; Outen, W. E., Salesman, Matthews-Moore Co., Charlotte, N. C.; Owen, B. G., Mechanic, Shelby Cotton Mills, Shelby, N. C.

Pegram, T. C., Supt., Erwin Cotton Mills, Cooleemee, N. C.; Phillips, H. L., Salesman, Sou. Elec. Co., Charlotte, N. C.

Richie, A. P., Supt., Dixon-Trenton Mills, Charlotte, N. C.

Stratton, Geo. F., Armature Winding Co., Charlotte, N. C.; Shealy, John, Sales Rep., Economy Fuse Mfg. Co., Charlotte, N. C.; Sherrill, J. W., Mechanic, A. M. Smyre

Mfg. Co., Gastonia, N. C.; Southard, J. H., Mechanic, Dover Mills, Shelby, N. C.; Spencer, Chas., Engineer, Union Bleachery, Greenville, S. C.; Starnes, Clarke, Gastonia Mill, Gastonia, N. C.; Styers, W. F., Mechanic, Neisler Mills, Kings Mountain, N. C.

Thompson, J. P., Pres., Eagle Iron Works, Greenville, S. C.; Thomason, L. W., N. Y. & N. J. Lubricant Co., Charlotte, N. C.; Thomason, Falls L., Rep., N. Y. & N. J. Lubricant Co., Charlotte, N. C.; Tice, F. F., Engineer, Industrial Mills, Rock Hill, S. C.; Tindall, Fred, Mechanic, Inman Mills, Inman, S. C.; Todd, F. C., Pres. and Treas., F. C. Todd Co., Gastonia, N. C.; Toms, J. P., Engineer, Shelby Mills, Shelby, N. C.

Vaughn, R. S., Southern Elec. Co., Greenville, S. C.

Wallace, E. N., Mechanic, Eagle Yarn Mill, Belmont, N. C.; Williams, Jim, Salesman, Greenville Textile Co., Greenville, S. C.; Williams, M. X., Engineer, Blackwood Coal Co., Greenville, S. C.; Williams, E. M., Engineer, Clinchfield Fuel Co., Spartanburg, S. C.; Wilson, W. H., Master Mechanic, Kings Mountain Mfg. Co., Kings Mountain, N. C.

Young, W. G., Master Mechanic, Wiscassett Mills, Albemarle, N. C.

Complete Study of Cotton Yarn

Washington.—A study of the physical properties of three lots of cotton yarn has just been completed at the Bureau of Standards.

Two of the lots (80s and 10s) were spun in the bureau's experimental mill. The 80s yarn was spun from 1 5-16-inch staple peeler cotton with 20 different twists. The 10s yarn was spun from 1-inch staple upland cotton with 12 different twists. Both yarns were spun with right-hand (Z) and with left-hand (S) twist. The third lot was 2-160s mercerized yarn spun from 1 3/4-inch staple Sea Island cotton. This yarn was considered to be of high commercial quality.

The breaking strength and elongation at rupture were determined by single-strand, multiple-strand, and skein tests. The variation in breaking strength, elongation at rupture, diameter, angle of twist, and irregularity of the 80s and 10s yarns with the amount of twist are shown. The average strength per strand and the elongation by the multiple-strand test are less than those by the single-strand test and greater than those by the skein test. The data were studied statistically and an explanation is given of the differences which were obtained by the different test methods.

Twelve cones of the commercial yarn were tested for breaking strength by the single-strand test. A statistical study of the data indicates significant differences in the average breaking strengths between the different cones.

Some of the factors which affect the strength of a cotton yarn are discussed. The formulas $\tan B$ equals π times D T , and T equals M times the square root of C , where B , D , T , M , and C are angle of twist, diameter, turns of twist per inch, twist multiplier, and count, respectively, are derived by assuming that the exposed fibers are arranged as helices on a circular cylinder, and that two yarns of different counts have the same density when their angles of twist are equal. It was found that the values for the angle of twist computed by these formulas were consistently greater than the observed values. The empirical formula: Beta equals arctan times π times D T , divided by 1 minus 0.4 times the square root of C , where T equals M times the square root of C , appears to give results which are in good agreement with the observed values.

Southern Sources of Supply

For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABBOTT MACHINE CO., Wilton, N. H. Sou. Agt., L. S. Ligon, Greenville, S. C.

AKRON BELTING CO., Akron, O. Sou. Branches, 209 Johnston Bldg., Charlotte, N. C.; 905 Woodside Bldg., Greenville, S. C.; 20 Adams Ave., Memphis, Tenn.

ALLIS-CHALMERS MFG. CO., Milwaukee, Wis. Sou. Sales Offices: Atlanta, Ga., Healey Bldg., Berrien Moore, Mgr.; Baltimore, Md., Lexington Bldg., A. T. Jacobson, Mgr.; Birmingham, Ala., Webb Crawford Bldg., John J. Greagan, Mgr.; Charlotte, N. C., Johnston Bldg., William Parker, Mgr.; Chattanooga, Tenn., Tennessee Electric Power Bldg., D. S. Kerr, Mgr.; Cincinnati, O., First National Bank Bldg., W. G. May, Mgr.; Dallas, Tex., Santa Fe Bldg., E. W. Hurbank, Mgr.; Houston, Tex., Shell Bldg., K. P. Ribble, Mgr.; New Orleans, La., Canal Bank Bldg., F. W. Stevens, Mgr.; Richmond, Va., Electric Bldg., C. L. Crosby, Mgr.; St. Louis, Mo., Railway Exchange Bldg., C. L. Orth, Mgr.; San Antonio, Tex., Frost National Bank Bldg., Earl R. Hurry, Mgr.; Tampa, Fla., 415 Hampton St., H. C. Flanagan, Mgr.; Tulsa, Okla., 18 North Guthrie St., D. M. McCargar, Mgr.; Washington, D. C., Southern Bldg., H. C. Hood, Mgr.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, 301 E. 7th St., Charlotte, N. C.; Paul Haddock, Sou. Mgr.

AMERICAN ENKA CORP., 271 Church St., New York City. Sou. Rep., R. J. Mebane, Asheville, N. C.

AMERICAN MOISTENING CO., Providence, R. I. Southern plant, Charlotte, N. C.

ARNOLD, HOFFMAN & CO., Inc., Providence, R. I. Frank W. Johnson, Sou. Mgr., Box 1268, Charlotte, N. C. Sou. Reps., Robert E. Buck, Box 904, Greenville, S. C.; Harold T. Buck, 1615 12th St., Columbus, Ga.; W. Chester Cobb, Hotel Russell Erskine, Huntsville, Ala.

ASHWORTH BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

ATLANTA HARNESS & REED MFG. CO., Atlanta, Ga., A. P. Robert and G. P. Carmichael, Atlanta Office. Sou. Reps., Ala. and Ga., Barney R. Cole, Atlanta Office; Carolinas and Va., W. T. Smith, P. O. Box 349, Greenville, S. C.

BANCROFT BELTING CO., 145 High St., Boston, Mass. Sou. Agent, Ernest F. Culbreath, Ninety-Six, S. C.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C.; J. H. Spencer, Mgr.

BORNE, SCRYMSEY CO., 17 Battery Place, New York City. Sou. Mgr., H. L. Slever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, Jefferson Apts., Charlotte, N. C.; John Ferguson, 303 Hill St., LaGrange, Ga.

BROWN CO., DAVID, Lawrence, Mass. Sou. Reps., Ralph Gossett, Woodside Bldg., Greenville, S. C.; William J. Moore, Woodside Bldg., Greenville, S. C.; Belton C. Plowden, Griffin, Ga.; Gastonia Mill Supply Co., Gastonia, N. C.; Russell A. Singleton, Dallas, Tex.; S. Frank Jones, 209 Johnston Bldg., Charlotte, N. C.; J. Richard Plowden, 421 10th Ave., West, Birmingham, Ala.

BROWN & CO., D. P., Philadelphia, Pa. Sou. Rep., N. W. Pyle, Box 834, Charlotte, N. C.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Office, Johnston Bldg., Charlotte, N. C.; J. Hill Zahn, Mgr.

CAMPBELL & CO., JOHN, 75 Hudson St., New York City. Sou. Reps., M. L. Kirby, P. O. Box 432, West Point, Ga.; Mike A. Stough, P. O. Box 701, Charlotte, N. C.; A. Max Browning, Hillsboro, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CHARLOTTE CHEMICAL LABORATORIES, Inc., Charlotte, N. C.

CHARLOTTE LEATHER BELTING CO., Charlotte, N. C.

CIBA CO., Inc., Greenwich and Morton Sts., New York City. Sou. Offices, 519 E. Washington St., Greensboro, N. C.; Greenville, S. C.

CLINTON CO., Clinton, Iowa. Sou. Offices, Clinton Sales Co., Greenville, S. C.; Byrd Miller, Sou. Rep., Atlanta Office, 223 Spring St. S.W., Box 466, Luther Knowles, Jr., Sou. Rep., Charlotte, N. C. Stocks carried at convenient points.

COMMERCIAL CREDIT CO., Baltimore, Md. Sou. Rep., C. R. Taylor, 1414 Johnston Bldg., Charlotte, N. C.

COMMERCIAL FACTORS CORP., 2 Park Ave., New York City. Sou. Rep., T. Holt Haywood, Reynolds Bldg., Winston-Salem, N. C.

CORN PRODUCTS REFINING CO., 17 Battery Place, New York City. Corn Products Sales Co., Greenville, S. C.; John R. White, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C.; J. Canty Alexander, Asst. Sou. Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga.; C. G. Stover, Mgr.; Corn Products Sales Co., 824-25 N. C. Bank Bldg., Greensboro, N. C.; W. R. Joyner, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala.; L. H. Kelley, Mgr. Stocks carried at convenient points.

CROMPTON & KNOWLES LOOM WORKS, Worcester, Mass. Sou. Plant, Charlotte, N. C.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep., John E. Humphries, P. O. Box 843, Greenville, S. C.; Chas. L. Ashley, P. O. Box 720, Atlanta, Ga.

DETROIT STOKER CO., Detroit, Mich. Sou. Dist. Rep., Wm. W. Moore, 1314 Johnston Bldg., Charlotte, N. C.

DILLARD PAPER CO., Greensboro, N. C., Greenville, S. C. Sou. Reps., E. B. Spencer, Box 681, Charlotte, N. C.; M. C. Gunn, Box 215, Lynchburg, Va.

DAUGHRY SHEET METAL CO., Charlotte, N. C.

DRAKE CORPORATION, Norfolk, Va.

DRAPER CORPORATION, Hopedale, Mass. Sou. Rep., E. N. Darrin, Vice-Pres.; Sou. Offices and Warehouses, 242 Forsyth St., S.W., Atlanta, Ga.; W. M. Mitchell, Spartanburg, S. C.; Clara H. Draper, Jr.

DUNKEL CO., PAUL A., 82 Wall St., New York City.

DU PONT DE NEMOURS & CO., Inc., E. I. Dyestuffs Div., Wilmington, Del. John L. Dabbs, Mgr.; D. C. Newman, Asst. Mgr.; E. P. Davidson, Asst. Mgr.—Technical. Sou. Warehouses, 302 W. First St., Charlotte, N. C. Reps., L. E. Green, H. B. Constable, W. R. Ivey, Charlotte Office; J. D. Sandridge, W. M. Hunt, 1031 Jefferson Standard Bldg., Greensboro, N. C.; B. R. Dabbs, John L. Dabbs, Jr., 715 Providence Bldg., Chattanooga, Tenn.; R. D. Sloan, Amanda Apt., Greenville, S. C.; J. M. Howard, 135 S. Spring St., Concord, N. C.; W. F. Crayton, Dimon Court Apt., Columbus, Ga.; J. A. Franklin, Augusta, Ga.; Tom Taylor, Newnan, Ga.

DU PONT DE NEMOURS & CO., Inc., E. I. The R. & H. Chemicals Dept., Wilmington, Del. R. M. Levy, district sales manager, 302 West First St., Charlotte, N. C.

EATON, PAUL B., 213 Johnston Bldg., Charlotte, N. C.

ECLIPSE TEXTILE DEVICES CO., Elmira, N. Y. Sou. Rep., John D. Lutes, P. O. Box 1551, Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Rep., George F. Bahaan, P. O. Box 581, Charlotte, N. C.

ENGINEERING SALES CO., 601 Builders' Bldg., Charlotte, N. C.

GENERAL DYESTUFF CORP., 230 Fifth Ave., New York City. Sou. Office and Warehouse, 1101 S. Blvd., Charlotte, N. C.; B. A. Stiken, Mgr.

GENERAL ELECTRIC CO., Schenectady, N. Y. Sou. Sales Offices and Warehouses, Atlanta, Ga. E. H. Ginn, Dist. Mgr.; Charleston, W. Va., W. L. Alston, Mgr.; Charlotte, N. C., E. P. Coler, Mgr.; Dallas, Tex., L. T. Blaisdell, Dist. Mgr.; Houston, Tex., E. M. Wise, W. O'Hara, Mgr.; Oklahoma City, Okla., F. D. Hathway, R. F. Dunlap, Mgrs.; Sou. Sales Offices, Birmingham, Ala., R. T. Brooke, Mgr.; Chattanooga, Tenn., W. O. McKinney, Mgr.; Ft. Worth, Tex., A. H. Keen, Mgr.; Knoxville, Tenn., A. B. Cox, Mgr.; Louisville, Ky., E. B. Myrick, Mgr.; Memphis, Tenn., G. O. McFarlane, Mgr.; Nashville, Tenn., J. H. Barksdale, Mgr.; New Orleans, La., B. Willard, Mgr.; Richmond, Va., J. W. Hicklin, Mgr.; San Antonio, Tex., I. A. Uhr, Mgr.; Sou. Service Shops, Atlanta, Ga.; W. J. Solbert, Mgr.; Dallas, Tex., W. F. Kaston, Mgr.; Houston, Tex., F. C. Runkler, Mgr.

GENERAL ELECTRIC VAPOR LAMP CO., Hoboken, N. J. Sou. Reps., Frank E. Keener and Earle Mauldin, 187 Spring St., N.W., Atlanta, Ga.; C. N. Knapp, Commercial Bank Bldg., Charlotte, N. C.

GOODRICH COMPANY, B. F., 4th and Brevard Sts., Charlotte, N. C. Atlanta District Office, 376 Nelson St., S. W., Atlanta, Ga.

GOODYEAR TIRE & RUBBER CO., Inc., The Akron, O. Sou. Reps., W. C. Killick, 205-207 E. 7th St., Charlotte, N. C.; P. R. Eckels, 141 N. Myrtle Ave., Jacksonville, Fla.; Royd Arthur 713-715 Linden Ave., Memphis, Tenn.; T. F. Stringer, 500-6 N. Carrollton Ave., New Orleans, La.; E. M. Chambliss, 709-11 Spring St., Shreveport, La.; Paul Stevens, 1609-11 First Ave., N. Birmingham, Ala.; B. S. Parker, Jr., Cor. W. Jackson and Oak Sts., Knoxville, Tenn.; E. W. Sanders, 209 E. Broadway, Louisville, Ky.; H. R. Zierach, 1225-31 W. Broad St., Richmond, Va.; J. C. Pico, 191-193 Marietta St., Atlanta, Ga.

GRASSELLI CHEMICAL CO., Cleveland, O. Sou. Office and Warehouse, 302 W. First St., Charlotte, N. C.

GRATON & KNIGHT CO., Worcester, Mass. Sales Reps., R. W. Davis, Graton & Knight Co., 313 Vine St., Philadelphia, Pa.; D. A. Ahlstrand, 1271 N. Morningside Drive, Atlanta, Ga.; D. P. Gordon, Graton & Knight Co., 115 S. 11th St., St. Louis, Mo.; O. D. Landis, 1709 Springdale Ave., Charlotte, N. C.; Roger W. Allen, 2078 Hollywood Drive, Memphis, Tenn.; H. L. Cook, Graton & Knight Co., 2615 Commerce St., Dallas, Tex.; Jobbers, Alabama Machinery & Supply Co., Montgomery, Ala.; McGowin-Lyons Hdw. & Supply Co., Mobile, Ala.; C. C. Anderson, 301 Woodside Bldg., Annex, Greenville, S. C.; Cameron & Barkley Co., Charleston, S. C.; Cameron & Barkley Co., Jacksonville, Fla.; Cameron & Barkley Co., Miami, Fla.; Cameron & Barkley Co., Tampa, Fla.; Smith-Courtney Co., Richmond, Va.; Taylor-Parker, Inc., Norfolk, Va.; Battery Machinery Co., Rome, Ga.; Columbus Iron Works, Columbus, Ga.; Fulton Supply Co., Atlanta, Ga.; Dallas Belting Co., Dallas, Tex.; Textile Supply Co., Dallas, Tex.; Textile Mill Supply Co., Charlotte, N. C.; Keith-Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Lewis Supply Co., Helena, Ark.; Southern Supply Co., Jackson, Tenn.; E. D. Morton & Co., Louisville, Ky.; Standard Supply & Hdw. Co., New Orleans, La.

GREENSBORO LOOM REED CO., Greensboro, N. C., Geo. A. McFetter, Mgr. Sales Rep., Geo. H. Batchelor, Phone 1-3034, Greensboro, N. C.

HART PRODUCTS CORP., 1440 Broadway, New York City. Sou. Reps., Samuel Lehrer, Box 234, Spartanburg, S. C.; O. T. Daniel, Textile Supply Co., 30 N. Market St., Dallas, Tex.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Office, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga.; J. C. Martin, Agt., Rockingham, N. C.; Fred Dickinson.

HERCULES POWDER CO., Wilmington, Del. Sou. Reps., Chas. H. Stone, Charlotte, N. C.

HERMAS MACHINE CO., Hawthorne, N. J. Sou. Rep., Carolina Specialty Co., P. O. Box 520, Charlotte, N. C.

HOUGHTON & CO., E. F., 240 W. Somerset St., Philadelphia, Pa. Sou. Sales Mgr., W. H. Brinkley, 1410 First National Bank Bldg., Charlotte, N. C. Sou. Reps., Walter Andrews, 1306 Court Square Bldg., Baltimore, Md.; C. L. Elbert, 1508 Court Square Bldg., Baltimore, Md.; C. B. Kinney, 1410 First National Bank Bldg., Charlotte, N. C.; D. O. Wylie, 1410 First National Bank Bldg., Charlotte, N. C.; J. J. Reilly, 2855 Peachtree, Apt. No. 45, Atlanta, Ga.; James A. Brittain, 1526 Sutherland Place, Homewood, Birmingham, Ala.; J. W. Byrnes, 333 St. Charles St., New Orleans, La.; B. E. Dodd, 333 St. Charles St., New Orleans, La.

HOUGHTON WOOL CO., 253 Summer St., Boston, Mass. Sou. Rep., Jas. E. Taylor, P. O. Box 504, Charlotte, N. C.

HOWARD BROS. MFG. CO., Worcester, Mass. Sou. Office and Plant, 244 Forsyth St., S.W., Atlanta, Ga.; Guy L. Melchor, Mgr. Sou. Rep., Guy L. Melchor, Jr., Atlanta Office; S.W. Rep., Russell A. Singleton, Mail Route 5, Dallas, Tex.

INDUSTRIAL RAYON CORP., Cleveland, O. Sou. Reps., J. H. Mason, P. O. Box 397, Greensboro, N. C.; Bruce Griffin, 1123 Elizabeth Ave., Charlotte, N. C.; W. L. Jackson, 920 Provident Bldg., Chattanooga, Tenn.

JACKSON LUMBER CO., Lockhart, Ala.

JACOBS MFG. CO., E. H., Danielson, Conn. Sou. Rep., W. Irving Bullard, Pres., Charlotte, N. C. Mgr. Sou. Service Dept., S. B. Henderson, Greer, S. C.; Sou. Distributors, Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., and Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hdw. Co., Anderson, S. C.; Montgomery & Crawford, Spartanburg, S. C.; Industrial Supply Co., Clinton, S. C.; Carolina Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; Greenville Textile Mill Supply Co., Greenville, S. C.; and Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; Waters-Garland Co., Louisville, Ky.

JOHNSON, CHAS. B., Paterson, N. J. Sou. Rep., Carolina Specialty Co., Charlotte, N. C.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C.; Daniel H. Wallace, Sou. Agt. Sou. Warehouses, Greenville, S. C.; Charlotte, N. C.; Burlington, N. C. Sou. Reps., Claude B. Her, P. O. Box 1383, Greenville, S. C.; Luke J. Castle, 515 N. Church St., Charlotte, N. C.; F. M. Wallace, 3931 Clairmont Ave., Birmingham, Ala.

LAW & CO., A. M., Spartanburg, S. C.

LINK-BELT CO., Philadelphia-Chicago, Indianapolis. Sou. Offices: Atlanta Plant, 1116 Murphy Ave., S.W., I. H. Barbee, Mgr.; Baltimore, 913 Lexington Bldg.; H. D. Alexander; Dallas Warehouse, 413-15 Second Ave., E. C. Wendell, Mgr.; New Orleans, 614 S. Peters St.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C.

MANHATTAN RUBBER MFG. DIV. OF RAYBESTOS-MANHATTAN, Inc., Passaic, N. J. Sou. Offices and Reps., The Manhattan Rubber Mfg. Div., 1108 N. Fifth Ave., Birmingham, Ala.; Alabama-Annisston, Anniston Hdw. Co.; Birmingham, Crandall Eng. Co. (Special Agent); Birmingham, Long-Lewis Hdw. Co.; Gadsden, Gadsden Hdw. Co.; Huntsville, Noonlin Hdw. & Supply Co.; Tuscaloosa, Allen & Jemison Co.; Montgomery, Teague Hdw. Co., Florida-Jacksonville, Cameron & Barkley Co.; Miami, Cameron & Barkley Co.; Tampa, Cameron & Barkley Co.; Georgia-Atlanta, Amer. Machinery Co.; Columbus, A. H. Watson (Special Agent); Macon, Bihb Supply Co.; Savannah, D. DeTreville (Special Agent); Kentucky-Ashland, Ren Williamson & Co.; Harlan, Kentucky Mine Supply Co.; Louisville, Graft-Pelle Co.; North Carolina-Asheville, T. S. Morrison & Co.; Charlotte, Charlotte Supply Co.; Durham, Dillon Supply Co.; Elizabeth City, Elizabeth City Iron Works & Supply Co.; Fayetteville, Huske Hdw. House; Goldsboro, Dewey Bros.; High Point, Kester Machinery Co.; and Reeson Hdw. Co.; Lenoir, Bernhardt-Seagle Co.; Gastonia, Gastonia Belting Co.; Raleigh, Dillon Supply Co.; Wilmington, Wilmington Iron Works; Shelby, Shelby Supply Co.; Winston-Salem, Kester Machinery Co.; South Carolina-Anderson, Sullivan Hdw. Co.; Charleston, Cameron & Barkley Co.; Clinton, Industrial Supply Co.; Columbia, Columbia Supply Co.; Greenville, Sullivan Hdw. Co.; Sumter, Sumter Machinery Co.; Spartanburg, Montgomery & Crawford, Tennessee-Chattanooga, Chattanooga Belting & Supply Co.; Johnson City, Summers Hdw. Co.; Knoxville, W. J. Savage Co.; Nashville, Buford Bros., Inc.; Salesmen-E. H. Olney, 101 Gertrude St., Alta Vista Apts., Knoxville, Tenn.; C. P. Shook, Jr., 1031 N. 20th St., Birmingham, Ala.; B. C. Nahers, 2519 27th Place S., Birmingham, Ala.; R. T. Rutherford, 1318 Harding Place, Charlotte, N. C.

MURRAY LABORATORY, Greenville, S. C.

NATIONAL LOIL PRODUCTS CO., Harrison, N. J. Sou. Reps., R. B. MacIntyre, 801 E. Blvd., Charlotte, N. C.; G. H. Small, 799 Arnone Ave., N.E., Atlanta, Ga. Warehouse, Chattanooga, Tenn.

NATIONAL RING TRAVELER CO., 257 W. Exchange St., Providence, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Sou. Agt., C. D. Taylor, Gaffney, S. C. Sou. Reps., L. E. Taylor, Box 272, Atlanta, Ga.; Otto Pratt, Gaffney, S. C.; H. B. Askew, Box 272, Atlanta, Ga.

NEUMANN & CO., R., Hoboken, N. J. Direct Factory Rep., Greenville Belting Co., Greenville, S. C.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York City. Sou. Office, 601 Kingston Ave., Charlotte, N. C.; Lewis W. Thomson, Sou. Dist. Mgr. Sou. Warehouses, Charlotte, N. C.; Spartanburg, S. C.; New Orleans, La.; Atlanta, Ga.; Greenville, S. C.

NORLANDER MACHINE CO., New Bedford, Mass. Sou. Plant, 213 W. Long St., Gastonia, N. C.

NORMA-HOFFMANN BEARINGS CORP., Stamford, Conn. Sou. Rep., E. W. Lawrence, 1841 Plaza, Charlotte, N. C.

ONYS-CRAMER CO., Charlotte, N. C., and Fitchburg, Mass.

ONYX OIL & CHEMICAL CO., Jersey City, N. J. Sou. Rep., Edwin W. Klumph, 1716 Garden Terrace, Charlotte, N. C.

PERKINS & SON, Inc., B. F., Holyoke, Mass.

PRECISION GEAR & MACHINE CO., Inc., Charlotte, N. C.

PRESTON CO., GUSTAVO, 113 Broad St., Boston, Mass. Sou. Reps., A. K. Duxton, P. O. Box 453, Charlotte, N. C.; John P. Batson, P. O. Box 841, Greenville, S. C.

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia, Pa. Factory and Tannery, Wilmington, Del.; Atlanta Store, 88 Forsyth St., S.W., Atlanta, Ga.; C. R. Mitchell, Mgr.; Reps., J. W. Mitchell, Box 1589, Greenville, S. C.; L. H. Schwoebel, 864 W. 5th St., Winston-Salem, N. C.; A. S. Jay, 329 West Point St., Roanoke, Ala.

ROHM & HAAS, Inc., Philadelphia, Pa. Sou. Rep., P. H. Del Plaine, 1109 Independence Bldg., Charlotte, N. C.

ROBINSON & SON CO., WM. C., Baltimore, Md. Sou. Office and Warehouse, Charlotte, N. C.; Sou. Mgr., B. D. Heath, Sou. Reps., Ben F. Houston and Fred W. Smith, Charlotte, N. C.; Robt. J. Maxwell, P. O. Box 1241, Greenville, S. C.; C. M. Greene, P. O. Box 545, Greensboro, N. C.

SACO-LOWELL SHOPS, 147 Milk St., Boston, Mass. Sou. Office and Repair Depot, Charlotte, N. C.; Walter W. Gayle, Sou. Agent; Branch Sou. Offices, Atlanta, Ga.; John L. Graves, Mgr.; Greenville, S. C.

SEYDEL CHEMICAL CO., Jersey City, N. J. Sou. Rep., Harold P. Goller, Greenville, S. C. Francis P. Boyer, Lowell, Mass.

SEYDEL-WOOLLEY CO., 748 Rice St., N.W., Atlanta, Ga.

SHERWIN-WILLIAMS CO., THE, Cleveland, O. Sou. Reps., E. H. Stegar, 212 W. First St., Charlotte, N. C.; R. B. Olney, 158 E. Main St., Spartanburg, S. C.; W. O. Maaten, 2308 S. Main St., Winston-Salem, N. C.; W. B. McLeod, 245 W. Freeman St., Norfolk, Va.; G. N. Jones, 207 Glascock St., Raleigh, N. C.; John Limbach, 233 Peachtree St., Atlanta, Ga.; D. S. Shimp, 3 Cummings Sta., Nashville, Tenn. Warehouses at Philadelphia, Charlotte, Spartanburg, Atlanta, Columbus, Nashville, Newark and Boston.

SIGNODE STEEL STRAPPING CO., 2600-2620 N. Western Ave., Chicago, Ill. Sou. Warehouses and Offices, Greensboro, N. C., 908 Lakeview St., Phone 6935, O. B. Shelton, Rep.; Atlanta, Ga., 113 Courtland St., S.E., A. S. Stephens, Rep.; New Orleans, La., 700 Tchoupitoulas St., P. E. Odenahl, Rep.

SIPP-EASTWOOD CORP., Paterson, N. J. Sou. Rep., Carolina Specialty Co., Charlotte, N. C.

SOCONY-VACUUM OIL CO., Inc., Southeastern Div. Office, 1603 Baltimore Trust Bldg., Baltimore, Md. Warehouses: Union Storage Warehouse Co., 1000 W. Morehead St., Charlotte, N. C.; Textile Warehouse Co., 511 Rhett St., Greenville, S. C.; South Atlantic Bonded Warehouse Co., Greensboro, N. C.; New South Express Lines, Columbia, S. C.; Terminal Storage Corp., 317 N. 17th St., Richmond, Va.; Taylor Transfer Co., 102 Boush St., Norfolk, Va.

SOLUOL CORP., 123 Georgia Ave., Providence, R. I. Sou. Rep., Eugene J. Adams, Terrace Apts., Anderson, S. C.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

SOUTHERN TEXTILE BANDING MILL, Charlotte, N. C.

STALEY SALES CORP., Decatur, Ill. Sou. Offices, 721 Glenn Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr. Reps., Geo. A. Dean, Spartanburg, S. C.; S. Leroy Smith, Charlotte, N. C.; J. A. Harris, Birmingham, Ala.; R. R. Berry, Atlanta, Ga.; W. T. Osteen, Greenville, S. C.

STANLEY WORKS, THE, New Britain, Conn. Sou. Office and Warehouse, 552 Murphy Ave., S.W., Atlanta, Ga.; H. C. Jones, Mgr.; Sou. Rep., Horace E. Black, P. O. Box 424, Charlotte, N. C.

STEEL HEDDLE MFG. CO., 2100 W. Allegheny Ave., Philadelphia, Pa. Sou. Office Plant, 621 E. McBee Ave., Greenville, S. C. H. E. Littlejohn and J. J. Kaufman, Jr., Vice-Pres. in charge of reed plant; Atlanta, Ga., H. Ralford Gaffney, 722-723 Forsyth Bldg.; Greensboro, N. C., C. W. Cain.

STEIN, HALL & CO., Inc., 285 Madison Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C.; Ira L. Griffin, Mgr.

STERLING RING TRAVELER CO., 101 Lindsey St., Fall River, Mass. Sou. Rep., Geo. W. Walker, P. O. Box 78, Greenville, S. C.

STEWART IRON WORKS, Cincinnati, O. Sales Reps., Peterson-Stewart Fence Construction Co., 241 Liberty St., Spartanburg, S. C.; Fred C. Shaefer, West Point, Ga.; A. E. Sortore, 27 Dartmouth Ave., Avondale Estates, Ga.; Ruff Hdw. Co., 1649 Main St., Columbia, S. C.; Lewis M. Clyburn, Box 388, Lancaster, S. C.; R. E. Davis, P. O. Box 343, Goldsboro, N. C.; Henry D. Bunch, 319 S. Boylan Ave., Raleigh, N. C.; Lewis L. Merritt, Odd Fellows Bldg., Wilmington, N. C.; S. Donald Fortson, 648 Broad St., Augusta, Ga.; The Taylor Iron Works & Supply Co., 1014 Broadway, Macon, Ga.; D. E. Kehoe, 412 E. 40th St., Savannah, Ga.; John R. Hall, Jr., Moultrie, Ga. Complete sales and erection service available through all of our representatives.

STONE, CHAS. H., Inc., Stone Bldg., Charlotte, N. C.

TERRELL MACHINE CO., Charlotte, N. C. E. A. Terrell, Pres. and Mgr.

TEXAS CO., THE, New York, N. Y. District Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk plants and warehouses in all principal cities. Lubrication Engineers, H. L. Marlow, W. H. Grose, D. L. Keys, Charlotte, N. C.; P. H. Baker, Spartanburg, S. C.

TEXTILE BANKING CO., 55 Madison Ave., New York City. Sou. Rep., Kenneth A. Durham, 1212 Commercial National Bank Bldg., Charlotte, N. C.

TEXTILE-FINISHING MACHINERY CO., Providence, R. I. Sou. Office, Johnston Bldg., Charlotte, N. C.

TEXTILE SHOP, THE, Franklin St., Spartanburg, S. C. E. J. Baddy, Sec. and Treas.

TRUSCON LABORATORIES, THE, Detroit, Mich. Sou. Reps.: *Atlanta, Ga., 324 Marietta St., R. G. Bullard; Birmingham, Ala., Truscon Steel Co., 1105 Martin Bldg.; *Charlotte, N. C., Statesville Road, George Woolley, Jr.; Chattanooga, Tenn., Truscon Steel Co., 903 James Bldg.; Dallas, Tex., 415 Construction Bldg.; Truscon Steel Co.; *Houston, Tex., 731 Merchants & Mfrs. Bldg.; W. F. Sattler; Jacksonville, Fla., Truscon Steel Co., 3rd and Clark Sts.; Knoxville, Tenn., Truscon Steel Co., 606 Burwell Bldg.; Memphis, Tenn., Truscon Steel Co., 536 Shrine Bldg.; New Orleans, La., Truscon Steel Co., 1143 Canal Bank Bldg.; *Norfolk, Va., 22nd & Manteo Sts., W. C. Utley; *Richmond, Va., 736 Central Nat'l Bank Bldg., A. P. Long. *Indicates laboratory.

UNIVERSAL WINDING CO., Providence, R. I. Sou. Offices, Charlotte, N. C., Atlanta, Ga.

U. S. GUTTA PERCHA PAINT CO., Providence, R. I. Sou. Fac. Reps., J. S. Palmer, 1207 Woodside Bldg., Greenville, S. C.; L. K. Palmer, 116 S. 13th St., Birmingham, Ala.; L. M. Hardy, 618 S. Mendenhall St., Greensboro, N. C. Sou. Distributors Barreled Sunlight, D. A. Hines, 316 Twelfth St., Lynchburg, Va.; The Henry Walke Co., P. O. Box 1003, Norfolk, Va.; Bullington Paint Co., Inc., Fourth and Broad Sts., Richmond, Va.; Morgan's, Inc., 111 W. Broad St., Savannah, Ga.; Nelson Hdw. Co., 17 Campbell Ave., E., Roanoke, Va.; Atlantic Paint Co., 207 Meeting St., Charleston, S. C.; Pritchard Paint & Glass Co. of Asheville, 77 Patton Ave., Asheville, N. C.; Pritchard Paint & Glass Co., 12 W. 5th St., Charlotte, N. C.; Gate City Paint Co., 110 N. Greene St., Greensboro, N. C.; Montgomery & Crawford, Inc., Spartanburg, S. C.; Chapman Drug Co., 516 State St., Knoxville, Tenn.; The Eason-Morgan Co., 323 Second Ave., N., Nashville, Tenn.; G. & H. Paint & Glass Co., 1016 Broadway, Columbus, Ga.; The Hutchens Co., 100 S. Jefferson St., Huntsville, Ala.; Campbell Coal Co., 236-240 Marietta St., N. W., Atlanta, Ga.; Favrot Roofing & Supply Co., P. O. Box 116, Station G, New Orleans, La.; Standard Bldg. Mat. Co., Inc., 230 31st St., Birmingham, Ala.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Reps., William W. Vaughan, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 168, Athens, Ga.

VEEDER-ROOT, Inc., Hartford, Conn. Sou. Office, Room 1401 Woodside Bldg., Greenville, S. C., Edwin Howard, Sou. Sales Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. office and stock room at 137 S. Marietta St., Gastonia, N. C. Also stock room in charge of B. F. Barnes, Jr., Mgr., 1733 Inverness Ave., N.E., Atlanta, Ga.

VISCOSE CO., Johnston Bldg., Charlotte, N. C., Harry L. Dalton, Mgr.

WAK, Inc., Charlotte, N. C. W. A. Kennedy, Pres.; F. W. Warrington, field manager.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Bldg., Charlotte, N. C.; W. H. Forcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reps., M. F. Thomas, Charlotte Office; I. D. Wingo and M. J. Bentley, Atlanta Office.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Rep., W. L. Nicholson, 2119 Conniston Place, Charlotte, N. C.

WILLIAMS & SONS, I. B., Dover, N. H. Sales Reps., C. C. Withington, 710 Woodside Bldg., Greenville, S. C.; R. A. Brand, 213 Johnston Bldg., Charlotte, N. C.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reps., C. R. Bruning, 1202 W. Market St., Greensboro, N. C.; Walter A. Wood Supply Co., 4517 Rossville Blvd., Chattanooga, Tenn.

Discussion On Slashing At Georgia Meeting

(Continued from Page 6)

the number of cuts that we were obtaining from various sets. That was true with reference to cuts from different slashers on the same sets, and it was true of the same sets coming off of the same slashers. The variation has been as high as 7 cuts. The main cause that we can find is the variation in stretch from one slasher to another.

VARIATION IN STRETCH

Chairman: Do you have any idea why it stretches on some more than it does on others?

Mr. Elliott: Yes. We know that the tension on your creels sometimes will cause that difference. We have a great number of styles, and we have checked that stretch, and we have found a variation of from one to two per cent. An interesting thing to me in watching this is that after you watch it for a while you can tell the slasher man whether he is running that set with excessive stretch.

Mr. Jennings: We check our slashers from time to time. The stretch causes the variation. We ran a test this week on a 13,000-yard set, and we gained $1\frac{1}{2}$ cuts, which figures seven-tenths of one per cent. We ran the same fabric on another set on another slashers, and we gained three cuts, which figured 1.4 per cent. A whole lot of things will cause variation. Sometimes your warper will get out of whack, and there are other things. Your friction will not be the same. On a light set, where you

have got a very light set, you have more weight on the section beam, and it is hard to keep the damned thing from kicking over when it stops. We check that pretty close. We find that the variation runs from one-fourth of one per cent to two per cent. If it gets over that, we start to investigating to see what the trouble is.

Chairman: Haven't you some ball bearings on the back of some of your slashers?

Mr. Jennings: Yes. We have ball bearings on the creels.

Chairman: Have you got them on all of them?

Mr. Jennings: Yes, and we have got a fiber washer. When the slasher man puts the sets in, and he don't fix it up tight, this washer is put in there, and it holds down the friction.

Mr. Purvis: From tests made we have found this same variation, and it is a little less than one per cent. We run 30s yarn, and find variation. Possibly it is some extra tension that causes that.

Mr. Daniel: We are getting a little bit more variation than the others. Ours runs from 2 to 4 per cent.

Mr. Sweeney: At the Exposition Cotton Mill we have a set of, say, 28,000 yards actual yardage of the slasher; on one set it ran 28,153. All these were with 1,692 ends. Another set it was 28,180 yards; another set 28,037 yards; another set 28,026 yards. That is a stretch of one-tenth of one per cent up to a little larger percentage of one per cent.

On another one we got 14,141 yards; another one 14,052 yards; on another one 14,181 yards. That's a variation of .4 per cent up to 1.3 per cent. Most of our sets will run about one-half to three-fourths of one per cent stretch.

I find there are a great many causes that will affect that stretch; for instance, the tension you put on your section beams and creels; and the tension you put on your yarn in front of the slasher.

PERCENTAGE OF MOISTURE AND SOLIDS

Chairman: We will turn to Question No. 6, as follows: "What percentage of moisture and solids should be left for best weaving results in warps? State yarn number, whether white or colored, construction of goods, etc."

Mr. Cooper: We leave 7.8 per cent moisture, and we leave 9.67 per cent total solids.

Chairman: That would give you about 15 or 16 per cent?

Mr. Cooper: About 17 per cent.

Mr. Rogers: That does not mean that much more than raw yarn?

Mr. Cooper: On the back of the slasher it shows 6 per cent.

Mr. Alford: We get satisfactory results on 30s warp, white, 1,980 ends to the set, leaving $6\frac{1}{2}$ to $7\frac{1}{2}$ per cent moisture, with $12\frac{1}{2}$ per cent solid.

Chairman: How does Mr. Cooper determine the un-sized yarn or sized yarn or figure the amount of starch, that goes in?

Mr. Cooper: We figure from the amount of size made, and we found out that we lost about 9.8 per cent of our size. In other words, about 10 per cent of the size, that don't go in the yarn.

Mr. Scofield: We leave about $6\frac{1}{2}$ to 7 per cent moisture, and about $9\frac{1}{2}$ per cent solids. That's in the warp.

Mr. Dillard: Our tests show on 2,150 ends 12s warp we have been putting in an average of 6 and 7 per cent moisture, and 11 to 12 per cent size. On the wet sets 2,608 ends 20s yarn we have a moisture content of 8 per cent, size about 9 per cent.

This ended the discussion on slashing.

(Continued next week)

Loom Cords a Specialty



We Also Manufacture
The Improved Dobby Bars and Pegs
Rice Dobby Chain Company
 Millbury, - - - - - Mass.



"What can
 we do
RIGHT NOW
 to improve
 production?"

The installation of new rings on frames where they are badly worn can be done immediately — and will improve production immediately. The result is usually a 10% to 15% increase in speed, as well as a noticeably better quality of yarn.

For *immediate improvement* install high-polish **DIAMOND FINISH** rings, the kind that run smoothly from the first day.

WHITINSVILLE (MASS.)

SPINNING RING CO.
Makers of Spinning and  *Twister Rings since 1873*

Southern Representative: WALTER L. NICHOLSON, 2119 Coniston Place, Charlotte
 Mid-West Representative: ALBERT R. BREEN, 2630 Coyne Street, Chicago



**Seydel-Woolley
 Company**

ATLANTA

Textile
 Chemicals
 For
 Best Weaving

A Concern is
 Known by the
 Customers It
 Keeps

Books That Will Help You With Your Problems

"Clark's Weave Room Calculations"

By W. A. GRAHAM CLARK

Textile Expert of U. S. Tariff Commission

Second edition. Completely revised and enlarged. A practical treatise of cotton yarn and cloth calculations for the weave room. Price, \$3.00.

"Practical Loom Fixing" (Third Edition)

By THOMAS NELSON

Completely revised and enlarged to include chapters on Rayon Weaving and Rayon Looms. Price \$1.25.

"Carding and Spinning"

By GEO. F. IVEY

A practical book on Carding and Spinning. Price, \$1.00.

"Cotton Mill Processes and Calculations"

By D. A. TOMPKINS

Third edition. Completely revised. An elementary text book for the use of textile schools and home study. Illustrated throughout. Price, \$2.00.

"Remedies for Dyehouse Troubles"

By WM. C. DODSON, B.E.

A book dealing with just that phase of dyeing which constitutes the day's work of the average mill dyer. Price, \$1.50.

"Cotton Spinner's Companion"

By I. C. NOBLE

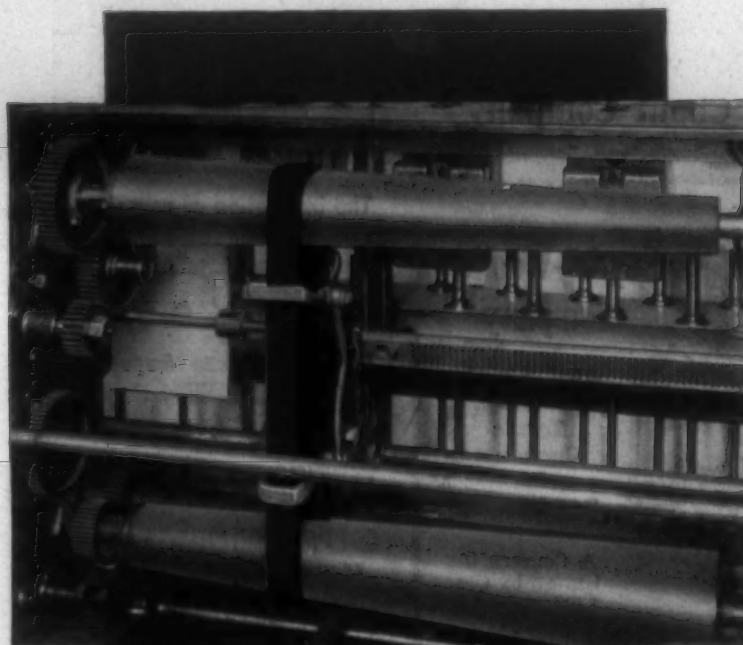
A handy and complete reference book. Vest size. Price, 75c.

Published By

Clark Publishing Company
 Charlotte, N. C.

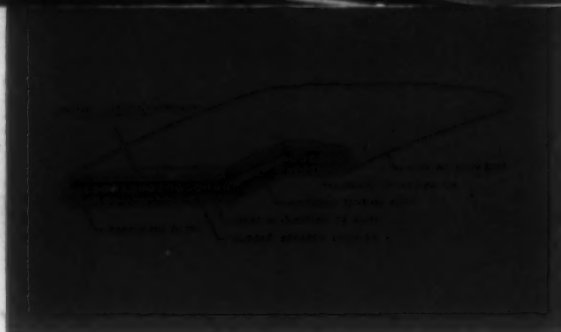
Condor

WHIPCORD CONE BELT



On a typical cone drive of a roving frame.

CONDOR Cone Belt
—sectional view.



DESIGNED FOR LONG LIFE

The severe demands made by cone and evenner drives have been met beyond the highest expectations of our engineers and of the textile mills—by Condor Whipcord Cone Belt. The records of hundreds of installations prove its efficiency and durability... The Condor Whipcord Cone Belt has a carefully balanced single layer, endless wound whipcord load-carrying section held between two layers of tenacious tie-gum. The cords are specially pretreated to remove all inelastic stretch. Separation of component parts or chafing between the cords is overcome. Available in 25 standard sizes to accommodate all machines conveniently.

Sold by leading jobbers

Condor PRODUCTS

V-Belt
Transmission Belt
Cone Belt
Air Hose
Acid Hose
Water Hose
Fire Hose
Steam Hose
Suction Hose
Molded Rubber Goods
Oilless Bearings
Hard Rubber Pot Eyes
Rubber Lined Tanks
Rubber Covered Rolls

ADVANTAGES:

1. Low inelastic stretch
2. High degree of bending flexibility
3. Wide margin of tensile strength
4. No splice in load carrying section
5. Effective resistance to distortion and wear from shifters
6. Unequalled longevity

THE MANHATTAN RUBBER MFG. DIVISION
OF RAYBESTOS-MANHATTAN, INC.

SALES OFFICES AND FACTORIES: NEW YORK, NEW JERSEY, PHILADELPHIA, PITTSBURGH, RICHMOND, ST. LOUIS, ST. PAUL, ST. PETERSBURG, TAMPA, WASHINGTON, D.C.

INSTITUTE FOR RESEARCH
IN SOCIAL SERVICE
UNIVERSITY OF MICHIGAN
1227 G R
OCT 35